



AUG 18 1992

17 August 1992

Ms. Cindy Woods
State of Vermont DEC
HMMD; SMS
103 South Main Street
Waterbury, VT 05671-0404

RE: Report on the Investigation of Subsurface Petroleum Contamination at the Former
Ascutney Citgo, Ascutney, VT (State DEC Site #91-1127)

Dear Ms. Woods:

Please find attached a copy of Griffin's report on the above-referenced site.

Please call me if you have any questions or comments.

Sincerely,

Ron Miller
Geologist

Attachment

**REPORT
ON THE INVESTIGATION OF
SUBSURFACE PETROLEUM CONTAMINATION**

at

**THE FORMER ASCUTNEY CITGO
ROUTE 5
ASCUTNEY, VERMONT
(Site #91-1127)**

July 1992

Prepared for:

**Rice Oil Company
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Greenfield, MA**

Prepared by:

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Griffin Job Number: 1924169

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I. SUMMARY

The former Ascutney Citgo is located along the west side of U.S. Route 5 in the village of Ascutney, Vermont. In September 1991, subsurface petroleum contamination was discovered during removal of petroleum underground storage tanks from the property.

Griffin International, Inc. (Griffin) investigated the source, degree, and extent of contamination at the site for Rice Oil Company of Greenfield, Massachusetts, the site owner. The investigation consisted of the following:

- Installation of eight soil borings and ten soil borings/monitoring wells;
- Field screening of soils from the borings for volatile organic compounds (VOCs);
- Laboratory analyses (by EPA Method 602) of water samples collected from the wells and from nearby bedrock supply wells; and
- Assessment of the risk posed to local buildings, surface water bodies, and drinking water supplies.

Based upon the results of this investigation, Griffin has concluded that a release or releases of gasoline have occurred at the former Ascutney Citgo. The exact source remains uncertain, but it is likely that a leak in one of the station's gasoline tanks or associated piping was responsible. The amount of gasoline released is also uncertain, but is believed to exceed 1000 gallons. The duration of the release or releases is unknown.

The release or releases have resulted in the contamination of groundwater beneath, and downgradient of, the spill area(s). Up to 2.22 feet of free-floating gasoline product have been detected in four monitoring wells located near the former pump island. The free-product plume appears to cover approximately 3000 square feet, but does not appear to be rapidly spreading.

The area of groundwater contamination in the surficial aquifer appears to be largely limited to the former Ascutney Citgo property. No free product has been detected in any off-site monitoring well, and dissolved contaminants have been detected in only one off-site monitoring well, located approximately twenty feet east of Route 5 on property owned by Mr. Gerald Russell.

Low concentrations of gasoline contamination have apparently also migrated into the bedrock aquifer. Trace levels of the gasoline additive MTBE have been detected in the site's supply well, located approximately 30 feet southwest of the former tank pit, and the Wragg Brothers supply well, located approximately 270 feet east of Route 5. Although the MTBE levels in both wells remain considerably below the State Health Advisory Guideline level, the MTBE level in the Wragg well appears to be increasing. No hydrocarbon contaminants have been detected in the Yankee Village Motel bedrock supply well, located approximately 400 feet north of the former Citgo, or in the Rea and White bedrock supply wells, located approximately 500 feet northwest of the site.

Materials comprising the surficial aquifer in the vicinity of the site are predominantly fine sands. The relatively low permeability of these materials has apparently helped to reduce the rate

of contaminant migration from the site. Groundwater in the surficial aquifer is present at approximately 15 feet below the surface, and flows east-southeast toward the Connecticut River. The water table surface appears to be characterized by narrow areas of steep gradient separated by wide areas of shallow gradient.

Metamorphic bedrock underlies the site, at depths ranging from 17 feet near the western edge of the site to over 25 feet east of Route 5. The bedrock surface appears to be characterized by narrow areas of steep eastward slope separated by wide areas that are relatively flat. It is likely that the irregular bedrock surface is responsible for the irregular water table surface in the overlying surficial aquifer.

Because of the degree of contamination found at the site and the potential threat to nearby bedrock supply wells, Griffin has initiated remedial activity at the site. Details of the remedial activities are described in a separate Griffin report, titled "Report on the Installation and Operation of Subsurface Petroleum Remediation Systems at Ascutney Citgo," which was submitted in July 1992. Continued operation of the remedial systems at the site has resulted in significant reduction in free product levels in on-site monitoring wells. Remedial activity is expected to continue until the site is no longer considered to be a risk to public health and safety.

II. INTRODUCTION

This report describes the investigation of subsurface petroleum contamination at the former Ascutney Citgo, located in Ascutney, Vermont. The investigation has been conducted by Griffin International, Inc. (Griffin) for the Rice Oil Company, owner of the site, after petroleum contamination was discovered in soils when petroleum underground storage tanks (USTs) were removed from the property on 24-26 September 1991. The operation of a remedial treatment system installed at the site is discussed in a separate report, entitled "Report on the Installation and Operation of Subsurface Petroleum Remediation Systems at Ascutney Citgo," which was submitted in July 1992.

A. Objectives

The objectives of this investigation were to:

- 1) Determine the degree and extent of soil and groundwater contamination resulting from possible leaks from the removed tanks, or ancillary piping and pumps;
- 2) Determine the identity and location of potential receptors;
- 3) Monitor groundwater quality in the installed monitoring wells and nearby bedrock supply wells.

B. Site Description

The Ascutney Citgo occupies an approximately one-half acre area along the west side of U.S. Route 5, approximately 0.2 miles north of the intersection with Vermont Route 12 in the Village of Ascutney, Vermont (see Figure 1, Site Location Map). With the exception of an area south of the building and an embankment along the western edge of the site, the entire site is paved or covered by the building. The area map (Figure 2A) shows the location of pertinent site features. The area surrounding the site exhibits a mixture of residential and commercial uses.

The site is located in the Connecticut River valley at an elevation of about 410 feet NGVD (National Geodetic Vertical Datum), on a terrace above the river. Topography at the site is generally flat. An embankment along the western edge of the site drops approximately six feet to a wooded area. The Connecticut River flows toward the south approximately one half-mile east of the site.

The Surficial Geologic Map of Vermont indicates that surficial materials at the site consist of sand deposited by a glacial high-level lake that once flooded the Connecticut Valley. Subsurface explorations at the site have encountered principally fine sand with lenses of silt, silty sand, coarser sand, and sand and gravel. Bedrock underlying the site is mapped as metamorphic schists of the Gile Mountain Formation. Bedrock was encountered in several of the borings performed at the site, at depths of between 17 feet and 25.5 feet. The bedrock surface appears to

have a general slope downward toward the east, but appears to drop in a stepped manner, with relatively flat areas separated by steeply sloping areas.

C. Summary of Site Activities

Major events relating to the site investigation are summarized below:

- 24-26 Sep 1991: Subsurface petroleum contamination is discovered at the site during removal of underground storage tanks from the property.
- 18 Oct 1991: VT DEC requests that Rice Oil Company hire a qualified consultant to perform a limited site assessment at the site.
- 26 Nov 1991: Rice Oil hires Griffin to perform the limited site assessment.
- 21 Jan 1992: Technical Drilling Services (TDS) installs three monitoring wells (MW1 - MW3) at the site under Griffin supervision. Griffin geologist observes 1.5 feet of free-floating product, believed to be gasoline, in MW1.
- 28 Jan 1992: Griffin collects water sample from Wragg supply well.
- 5-6 Feb 1992: TDS installs eight soil borings (B1 - B8) and four additional monitoring wells (MW4 - MW7) under Griffin supervision. Griffin geologist observes free-phase floating product, also believed to be gasoline, in MW4, MW5, and MW7.
- 13 Feb 1992: Griffin samples three MWs (other four contain free product) and Yankee Village supply well.
- 25 Mar 1992: TDS installs three additional downgradient monitoring wells (MW8 - MW10) under Griffin supervision.
- 2 April 1992: Griffin samples six monitoring wells (other four have free product) and three supply wells.
- 8 May 1992: Griffin samples site monitoring wells and five supply wells.
- 9 Jun 1992: Griffin samples site monitoring wells and three supply wells.

III. SUBSURFACE EXPLORATIONS

A. Monitoring Well Installations

On 21 January 1992, Technical Drilling Services (TDS) of Clinton, Massachusetts installed three soil boring/monitoring wells (MW1 - MW3) at the site with a hollow-stem auger drill rig, under the supervision of a Griffin hydrogeologist (see Figure 2 for locations).

The objectives of the initial monitoring well installations were to determine the degree and extent of soil and ground water contamination in the surficial aquifer at the site. Monitoring wells MW1 and MW2 were located in the presumed downgradient direction from the former tank pit. Monitoring well MW3 was located along the presumed upgradient edge of the former tank pit.

On the same day as the wells were installed, the Griffin hydrogeologist noted that approximately 1.5 feet of free-floating petroleum product (believed to be gasoline) had accumulated in MW1. After consultation with Rice Oil and the VT DEC, it was determined that additional subsurface investigation would be necessary.

On 5 - 6 February 1992, TDS installed eight soil borings (B1 - B8) and four additional soil boring/monitoring wells (MW4 - MW7) at the site with a hollow-stem auger drill rig, under the supervision of a Griffin hydrogeologist (see Figure 2 for locations).

The soil borings were installed to evaluate the extent of contamination in the surficial aquifer, and to assist in locating the additional monitoring wells. Temporary monitoring wells were installed in soil borings in which significant indications of contamination had been noted, to evaluate whether free product was present on the water table. After approximately one hour, each temporary well was checked with a bailer, then was removed and the hole backfilled with native material.

After the soil borings had been completed, the four additional monitoring wells were located to better evaluate the extent of the free product plume. Free product was detected in monitoring wells MW4, MW5 and MW7 within hours of installation.

After consultation with Rice Oil and the VT DEC, it was determined that three more monitoring wells were needed. On 25 March 1992, TDS installed monitoring wells MW8 - MW10 under Griffin supervision. The principal objectives of these wells were to define the extent of downgradient contaminant migration in the surficial aquifer. MW8 was located on property owned by Ms Carri Ann Murray. MW9 was located approximately 100 feet east of, and directly downgradient from, MW6 on property owned by Mr. Gerald Russell. MW 10 was located on property owned by Mr. Jay Wragg, between the Wragg bedrock supply well and a 4000-gallon diesel and heating-oil UST on his property, with the additional objective of evaluating whether the diesel or another present or former UST on the Wragg property was the source of contamination detected in the Wragg supply well.

The borings performed for this investigation encountered principally fine sand, interbedded with silty sand, silt, medium to fine sand, coarse to fine sand, and sand and gravel layers. Bedrock was encountered in several of the borings performed for the study, at depths of between 16.5 feet and 25.5 feet below the surface. The bedrock surface appears to dip generally toward the east, with narrow steep areas separated by wider flat areas. For example, bedrock was encountered at 16.5 - 17 feet below the surface in MW3, MW2, and B8, but at 18.5 -21 feet below the surface in MW1, MW7, MW4, and MW5. East of Route 5, bedrock was encountered only in boring B2, at 25.5 feet below the surface.

Detailed descriptions of the subsurface materials are presented in the individual well logs in Appendix B. A geologic cross-section through the site is presented as Figure 2B; the line of section is shown on the area map (Figure 2A).

The wells are constructed of two-inch diameter well screen and casing. The annulus between the borehole wall and the screened section of each well contains a silica gravel pack to filter fine sediments from the well. The annulus of each well also contains a bentonite seal to prevent surface water from infiltrating into the well. Each well is protected at the surface by a steel, flush-mount well protector with a bolt-down cover. Well construction details are listed in the well logs in Appendix B.

After installation, each monitoring well that did not contain free product was developed with a clean Teflon bailer by the Griffin hydrogeologist.

B. Determination of Groundwater Flow Direction and Gradient

During each sampling, Griffin has measured depths to product and/or water in all of the installed monitoring wells. Water table elevations were subsequently calculated by subtracting measured depth-to-water from surveyed top-of-casing elevations. For wells in which free product was detected, the water table elevation was corrected to remove the water table depression caused by the observed free product thickness. Water level data is presented in Appendix C.

The water table surface was estimated using the water level elevations in the monitoring wells. Groundwater in the area was found to be flowing east or southeast, generally toward the Connecticut River, at an average gradient of 1.7% (see Figure 3, Groundwater Contour Map). The water table surface does not appear to slope uniformly, however. The area between MW3 and MW7 has a gradient of 5.9%, but between MW7 and MW6, the gradient is only 1.1%. Another region of higher gradient, estimated at 5%, lies between MW6 and MW9. The water table appears to flatten to the east of this area, with a gradient of only 0.26% between MW9 and MW10.

C. Free Product Levels in Monitoring Wells

Free-floating gasoline product has been detected in monitoring wells MW1, MW4, MW5, and MW7. All of these wells are located on the Citgo property, downgradient of the former tank pit and in the immediate vicinity of the former pump island. On the basis of information from

these and other monitoring wells and soil borings on the site, we estimate that the free-product plume covered approximately 3000 square feet in April 1992.

Griffin's report on the installation and operation of the site remediation systems describes the product bailing and pumping efforts at the site. Appendix A of this report contains a table and graph that summarize free-product measurements in the wells between February and July 1992. These data indicate that free-product levels in the monitoring wells have declined since remedial efforts began.

IV. CHEMICAL TESTING

A. Test Screening of Soils

Undisturbed soil cores were collected from each borehole at five-foot intervals, using a split-spoon sampler. Samples were placed into Ziploc bags, shaken, then screened for volatile organic compounds (VOCs) using an HNU PI-101 portable photoionization detector (PID) that was calibrated daily with isobutylene and referenced to benzene. PID readings are listed in the individual well logs in Appendix B.

Elevated PID readings were observed in soils from all of the soil borings and all of the monitoring wells except MW8, MW9, and MW10. In general the highest PID readings were obtained in the borings and monitoring wells located in or immediately downgradient of the free product plume, and generally increased with increasing depth. With few exceptions, samples collected from the 14' - 16' depth interval (near the water table) had sharply higher PID readings than other samples in the same boring or monitoring well. One exception was boring B3, located in the former tank pit, in which the highest PID reading (240 ppm) was at 4' - 6'.

B. Laboratory Analyses

Griffin has collected water samples for laboratory analysis (by EPA Method 602) from several monitoring wells and supply wells in the vicinity of the Ascutney Citgo. In April 1992, Griffin began collecting monthly samples for laboratory analysis (by EPA Method 602) to monitor groundwater quality in the vicinity of the site.

EPA Method 602 analysis includes testing for the gasoline compounds benzene, toluene, ethylbenzene, and xylenes (collectively known as BTEX), and the gasoline additive methyl-tert butylated ether (MTBE). All of these compounds are regulated in drinking water in the State of Vermont. A Maximum Contaminant Level (MCL) of 5 parts per billion (ppb) has been established for benzene. Vermont Health Advisory guideline standards for the other compounds are as follows: toluene- 2400 ppb; ethylbenzene- 680 ppb; xylenes- 400 ppb; and MTBE- 40 ppb.

Temporal groundwater quality trends for wells in which gasoline constituents have been detected are shown in figures 5 - 9 and tables 1 - 5 in Appendix A. Spatial distribution of combined levels of BTEX compounds and MTBE during the April 1992 sampling is shown in the Contaminant Distribution Map in Appendix A. Laboratory result forms are presented in Appendix D.

During each sampling round, at least three well volumes were purged by bailing from each monitoring well prior to sample collection. Supply well samples were collected from the tap believed to be closest to the well, after allowing the faucet to run for ten minutes. Equipment blank, trip blank, and duplicate samples were also collected during each monitoring well sampling.

Griffin collected a tap sample from the Wragg Bothers well on 28 January 1992. On 13 February 1992, Griffin collected groundwater samples from two of the three installed monitoring

wells for laboratory analysis of VOCs by EPA Method 602 (MW2 and MW3; free product was present in MW1).

On 2 April 1992, Griffin collected groundwater samples from MW2, MW3, and four out of six newly installed monitoring wells (MW6, MW8, MW9, and MW10; free product was present in MW4 and MW5). Griffin also collected tap samples from three supply wells (the Wragg well, the Citgo supply well, and the Yankee Village Motel supply well).

On 8 May 1992, Griffin collected samples from the above six monitoring wells and three supply wells, as well as samples from the Rea and White supply wells.

On 9 June 1992, Griffin collected samples from the six monitoring wells and three supply wells sampled in April.

No gasoline compounds were detected in any of the samples collected from the following monitoring wells: MW8, located approximately 200 feet northeast of MW6 on the Murray property; MW9, located approximately 100 feet east, and downgradient of, monitoring well MW6; or MW10, located between a diesel UST on the Wragg property and the Wragg supply well.

Relatively low levels of some benzene, toluene, and/or MTBE were detected in monitoring well MW2, located south of the apparent free-product plume, during the February and April 1992 samplings (Figure 5 and Table 1). No MTBE or BTEX compounds were detected in the May or June 1992 samplings.

In monitoring well MW3, located near the southwestern edge of the former tank pit and upgradient from the apparent free-product plume, moderate levels of all of the BTEX compounds were detected in the February 1992 and subsequent samplings (Figure 6 and Table 2). Total BTEX levels in the well declined between the April 1992 and May 1992 samplings. MTBE levels in the well were above the Health Advisory standard in the February and April 1992 samplings, but declined to below the detection limit in the May and June samplings.

In monitoring well MW6, located immediately downgradient of the apparent free-product plume, relatively high levels of BTEX compounds were detected during the February 1992 and subsequent samplings (Figure 7 and Table 3). MTBE has not been detected in this well.

No BTEX compounds or MTBE have been detected in the Yankee Village Motel bedrock supply well, located approximately 400 feet north of the Citgo, or the Rea or White bedrock supply wells, located approximately 500 feet northwest of the site.

MTBE was detected in the Wragg bedrock supply well in the January 1992 and subsequent samplings (Figure 8 and Table 4). Although the MTBE levels appear to be rising over time, the levels remained well below the Vermont Health Advisory guideline standard. No BTEX compounds were detected in this well.

MTBE was also detected in the Citgo bedrock supply well in the April and May 1992 samplings, at similar levels to those in the Wragg well (Figure 9 and Table 5). MTBE was not detected in this well during the June 1992 sampling.

V. RISK ASSESSMENT

Griffin surveyed the area surrounding the site to determine the risk posed by the subsurface petroleum contamination at the site.

The Connecticut River is located approximately one half-mile east of the former tank pit; most of the groundwater in the vicinity of the site presumably ultimately discharges in to the river. Groundwater sampling results on monitoring wells located between the site and the river, on the other hand, indicate that the river is not immediately threatened by the contamination at the site.

The Ascutney Citgo is built on a concrete slab, and thus does not have a basement. It is thus not likely that hydrocarbon vapors will migrate into the building. The Russell residence is located immediately downgradient of the free-product plume and does have a basement, but soil vapor levels in borings installed near the Russell residence were not elevated, and no elevated PID readings were obtained in the Russell residence basement during a 6 February 1992 screening. If contaminants migrate significantly, however, hydrocarbon vapors may pose a threat to the Russell residence. The Wragg apartment building and Westney residence also have basements, but were not screened.

Most of the surrounding residences and commercial facilities in the village of Ascutney are served by a private water system, which obtains water from two gravel wells located approximately one half-mile north of the site. Because of the distance from the site and the apparent upgradient location of the wells, it is not thought that these wells are threatened by the contamination at the site.

All known bedrock wells within 500 feet of the site have been sampled and tested for gasoline constituents. MTBE has been detected at levels below State standards in the Wragg and Citgo supply wells. MTBE levels in the Wragg well appear to be increasing, however.

VI. CONCLUSIONS

Based on the above-described investigation of subsurface petroleum contamination at the former Ascutney Citgo in Ascutney, Vermont, Griffin has reached the following conclusions:

1. A release or releases of gasoline have occurred in the vicinity of the former Ascutney Citgo service station in Ascutney, Vermont. Free-floating gasoline has been detected in four monitoring wells located in the vicinity of the former pump island and downgradient from the former tank pit, but not in an upgradient well. No other potential sources are known to exist upgradient of the contaminated area.
2. The exact source of the contamination remains uncertain, but it is likely that a leak or leaks in one of the station's tanks or associated piping was responsible. A free-product plume, covering approximately 3000 square feet, appears to be located downgradient from the former tank pit, in the immediate vicinity of the former pump island. Shallow soil contamination levels were highest in the former tank pit.
3. The release or releases at the site have resulted in the contamination of soils and groundwater beneath, and downgradient of, the spill area. Soils immediately above the free-product plume and in the former tank pit contain elevated levels of hydrocarbon vapors. BTEX compounds and/or MTBE have been detected in two on-site monitoring wells and one off-site monitoring well.
4. The area of groundwater contamination in the surficial aquifer appears to be largely limited to the Ascutney Citgo property. No free product has been detected in any off-site monitoring well, and dissolved contaminants have been detected in only one off-site monitoring well, located approximately 50 feet east and directly downgradient of the known free-product plume.
5. Trace levels of the gasoline additive MTBE have been detected in the Ascutney Citgo supply well, located approximately 30 feet southwest of the former tank pit, and in the Wragg supply well, located approximately 270 feet east of Route 5. Because MTBE is only used in gasoline, and because no hydrocarbon compounds were detected in a surficial monitoring well located between the Wragg diesel UST and the Wragg supply well, the Wragg UST is probably not responsible for the MTBE in the Wragg well. This conclusion, together with the lack of detectable levels of hydrocarbons in a surficial monitoring well located between the Citgo and the Wragg supply well, suggests that contaminated groundwater in the vicinity of the Citgo has apparently migrated from the overburden into the fractured bedrock aquifer and has traveled through bedrock fractures to the Wragg supply well.
6. The MTBE levels in the Wragg well have been consistently increasing since the first sampling on 28 January 1992, but remain below the Vermont Health Advisory guideline standard.

7. Trace levels of MTBE have also been detected in the Citgo bedrock supply well, but no hydrocarbon contaminants have been detected in the Yankee Village Motel bedrock supply well, located approximately 400 feet north of the former Citgo, or in the Rea and White bedrock supply wells, located approximately 500 feet northwest of the site.
8. Materials comprising the surficial aquifer in the vicinity of the site are predominantly fine sands. The relatively low permeability of these materials has apparently helped to reduce contaminant migration from the site. Groundwater in the surficial aquifer is present at approximately 15 feet below the surface, and flows east or southeast toward the Connecticut River (see Groundwater Contour Map). The water table surface appears to be characterized by narrow areas of steep gradient separated by wide areas of shallow gradient.
9. Metamorphic bedrock underlies the site, at depths ranging from 17 feet near the western edge of the site to over 25 feet east of Route 5. The bedrock surface appears to be characterized by narrow areas of steep eastward slope separated by wide regions that are relatively flat. It is likely that the irregular bedrock surface is responsible for the irregular water table surface in the overlying surficial aquifer.
10. Continued operation of the remedial systems at the site has resulted in a reduction in free product levels in on-site monitoring wells. Dissolved contamination levels in the two on-site monitoring wells that do not contain free product also appear to have declined. Dissolved contamination levels in the one off-site monitoring well in which contamination has been detected do not appear to have changed significantly.

VII. RECOMMENDATIONS

Recommendations regarding the remedial systems at the site were included in Griffin's report on the installation and operation of those systems. Based on the conclusions from this report, we present the following additional recommendations:

1. The installed monitoring wells should be sampled monthly to detect any contaminant migration and to monitor the effectiveness of the remediation systems installed at the site. The samples should be submitted for laboratory analysis by EPA Method 602.
2. The Wragg and Citgo supply wells should also be sampled monthly, to monitor whether the apparent rise in MTBE levels continues. The samples should also be submitted for laboratory analysis by EPA Method 602.
3. The Yankee Village supply well should be sampled quarterly, with the samples analyzed by EPA Method 602. Although it is located less than 500 feet from the site, no contaminants have been detected in the well since it was first sampled in February 1992, so it appears less likely that the well will become contaminated.
4. Sample results should be included in monthly progress reports on the remedial activities at the site.

APPENDIX A
FIGURES AND TABLES

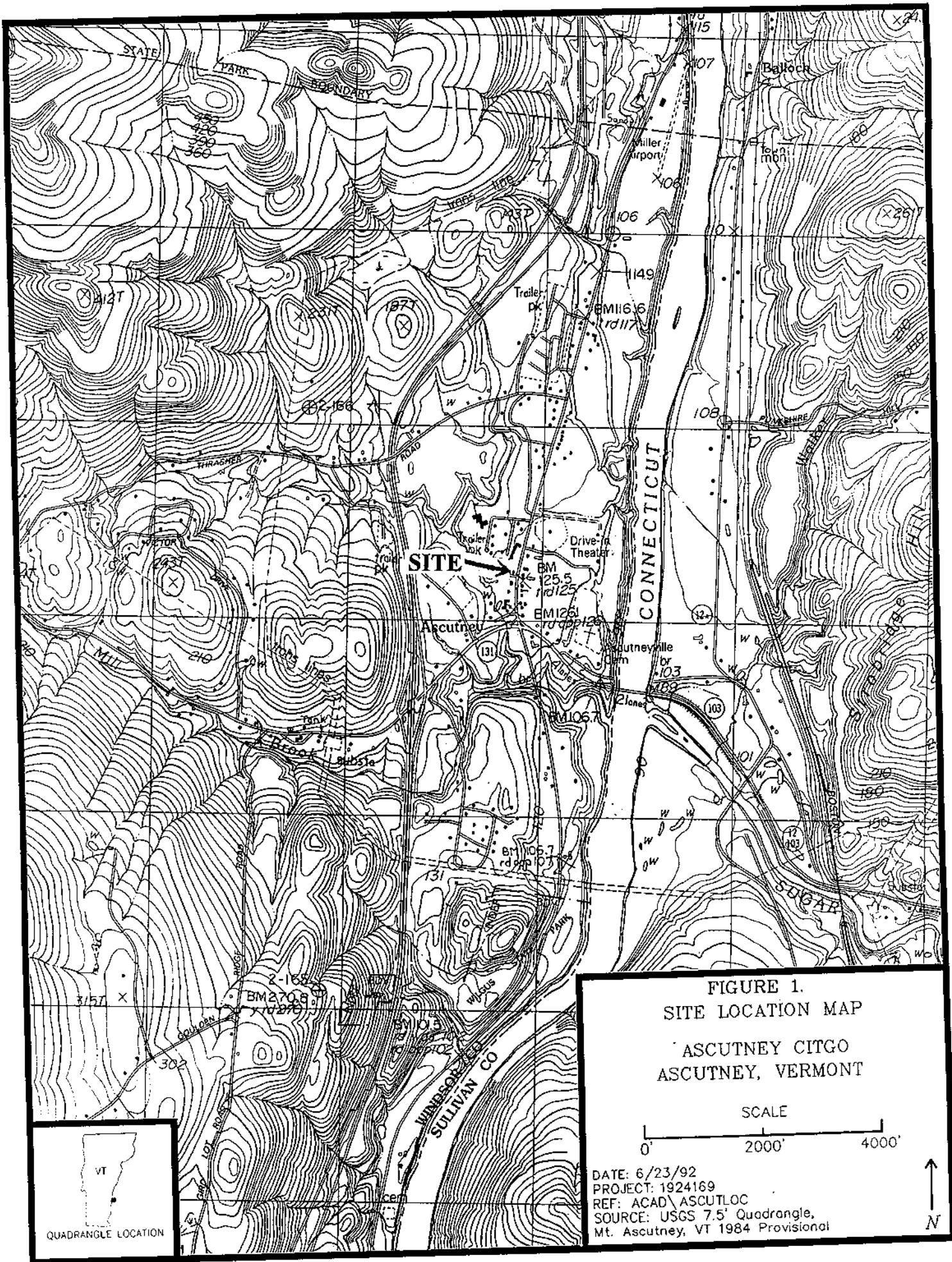


FIGURE 2A.

AREA MAP

⊕ Monitoring Well

⊗ Soil Boring

△ Supply Well

SCALE

0' 50' 100'

PROJECT: ASCUTNEY CITGO
LOCATION: ASCUTNEY, VERMONT
GRIFFIN PROJECT #: 1924169
DATE: 6/18/92
REF: RON\ASCUTNEY

GRIFFIN INTERNATIONAL, INC.

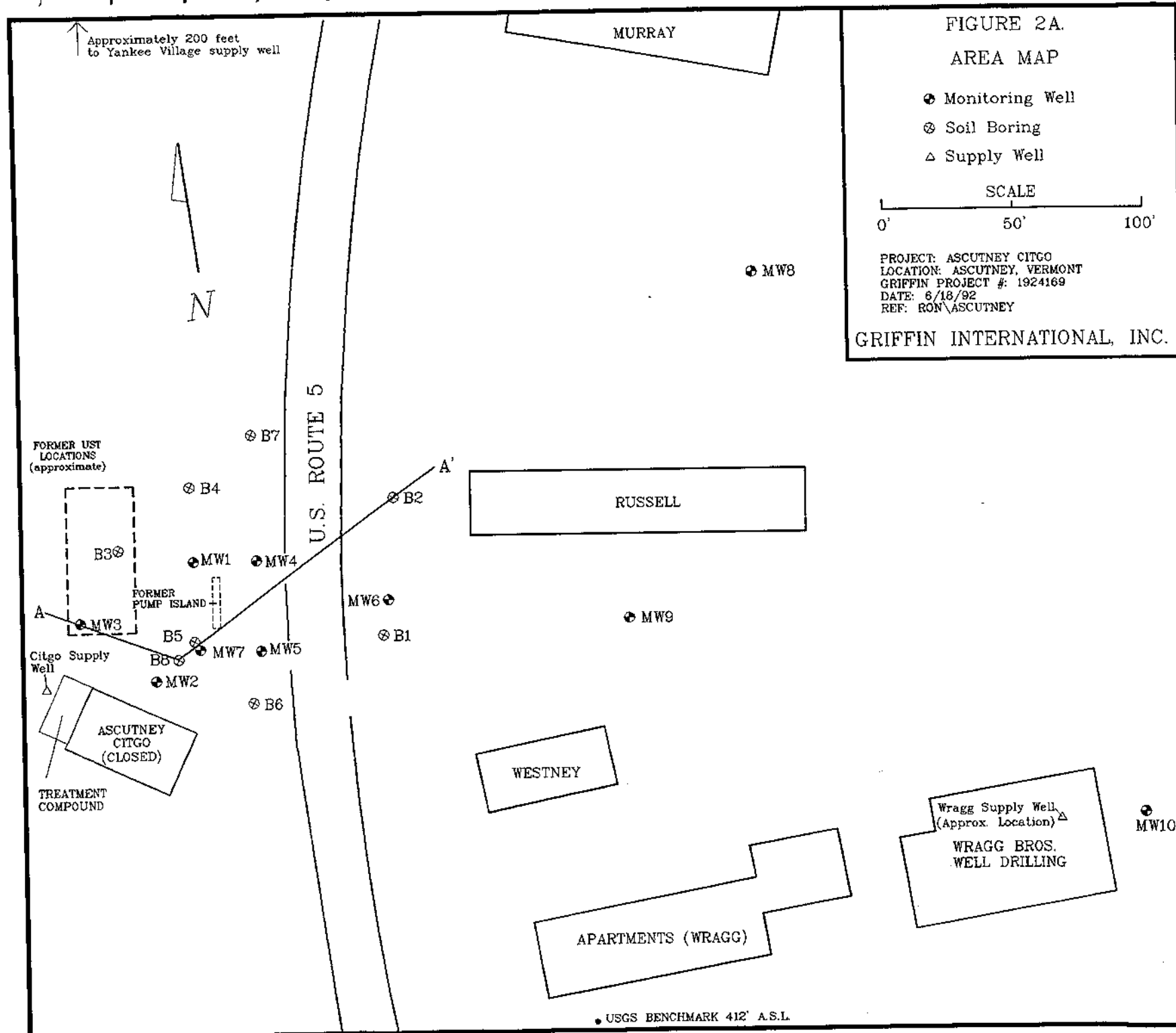


FIGURE 2B. GEOLOGIC CROSS SECTION ASCUTNEY CITGO

HORIZONTAL SCALE 1" : 20'
VERTICAL EXAGGERATION 2X

LEGEND

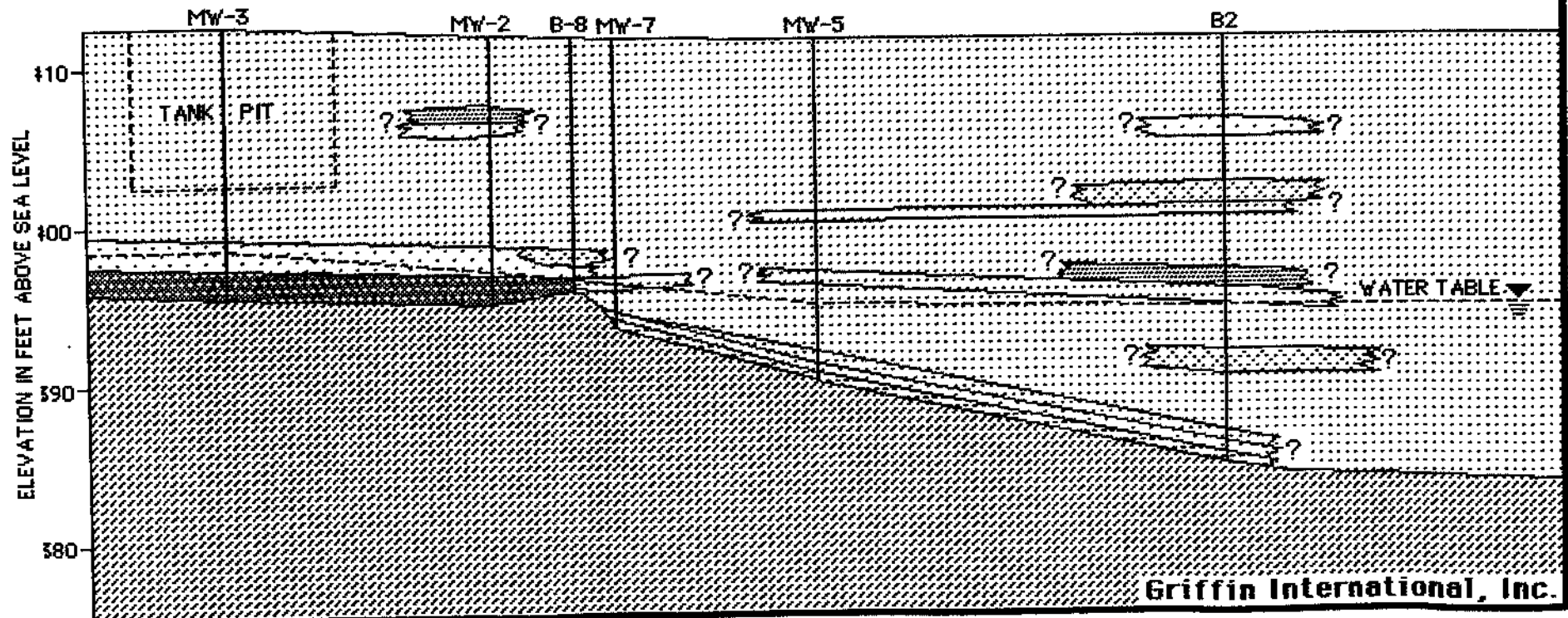
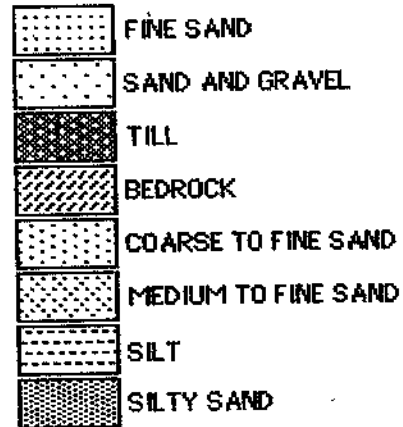
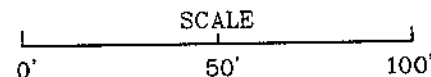


FIGURE 3. GROUNDWATER CONTOUR MAP

Monitoring Date: 4/2/92

- Monitoring Well
- 391.95' Water Table Elevation, Feet ASL
- △ Supply Well
- 392' — Groundwater Contour Line



PROJECT: ASCUTNEY CITGO
LOCATION: ASCUTNEY, VERMONT
GRIFFIN PROJECT #: 1924169
DATE: 6/18/92
REF: RON\ASCUTNEY

GRIFFIN INTERNATIONAL, INC.

FORMER UST
LOCATIONS
(approximate)

MW3
398.80'

Citgo Supply
Well

ASCUTNEY
CITGO
(CLOSED)

TREATMENT
COMPOUND

FORMER
PUMP ISLAND

MW2
397.60'

MW1
398.59'

MW4
398.50'

MW7

MW5
398.50'

GROUNDWATER
FLOW
DIRECTION

U.S. ROUTE 5

MW6
396.40'

MURRAY

RUSSELL

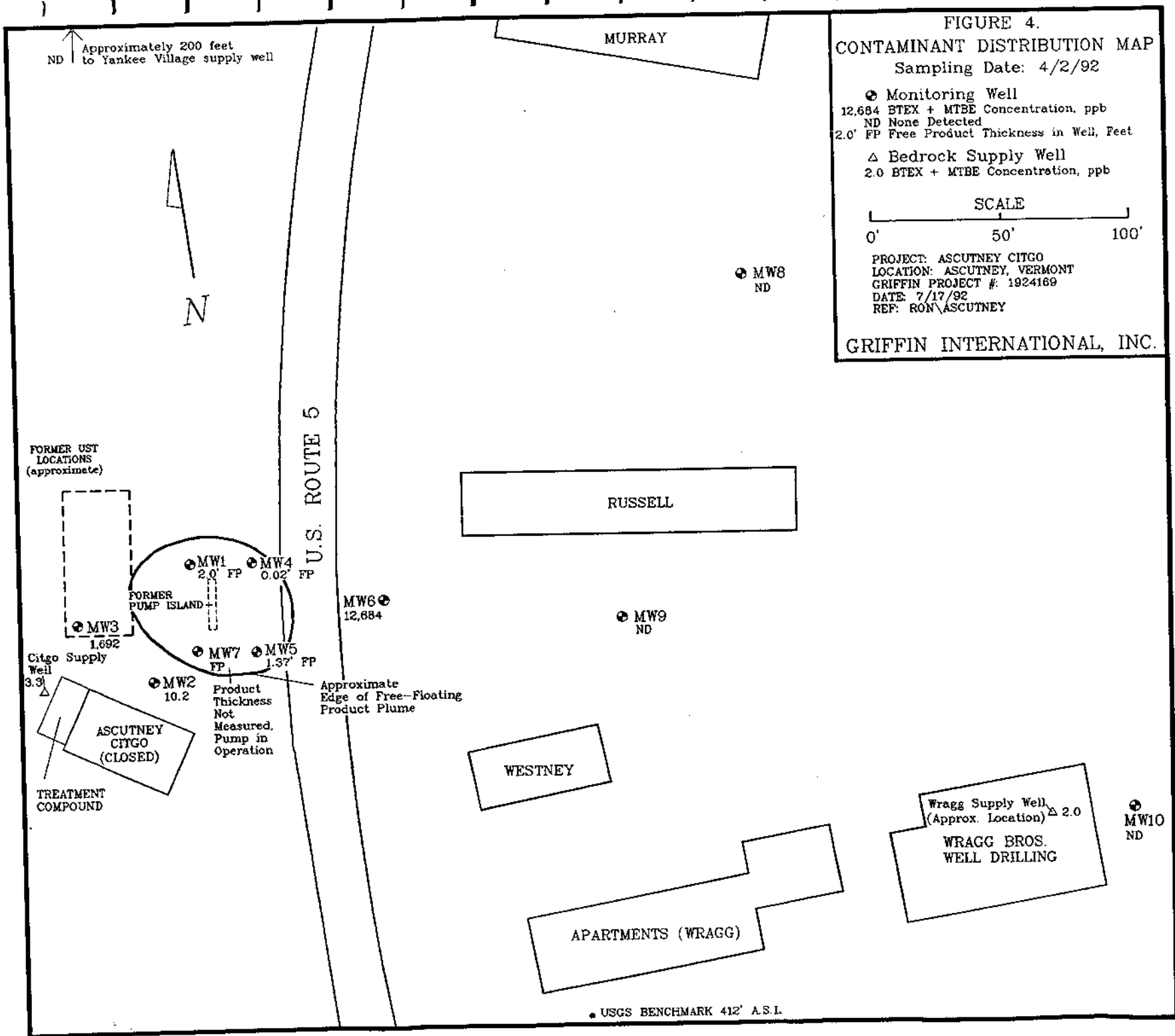
WESTNEY

APARTMENTS (WRAGG)

Wragg Supply Well
(Approx. Location) △
WRAGG BROS.
WELL DRILLING

MW10
391.47'

• USGS BENCHMARK 412' A.S.L.



**FIGURE 5. Ascutney Citgo MW2
BTEX and MTBE Concentrations**

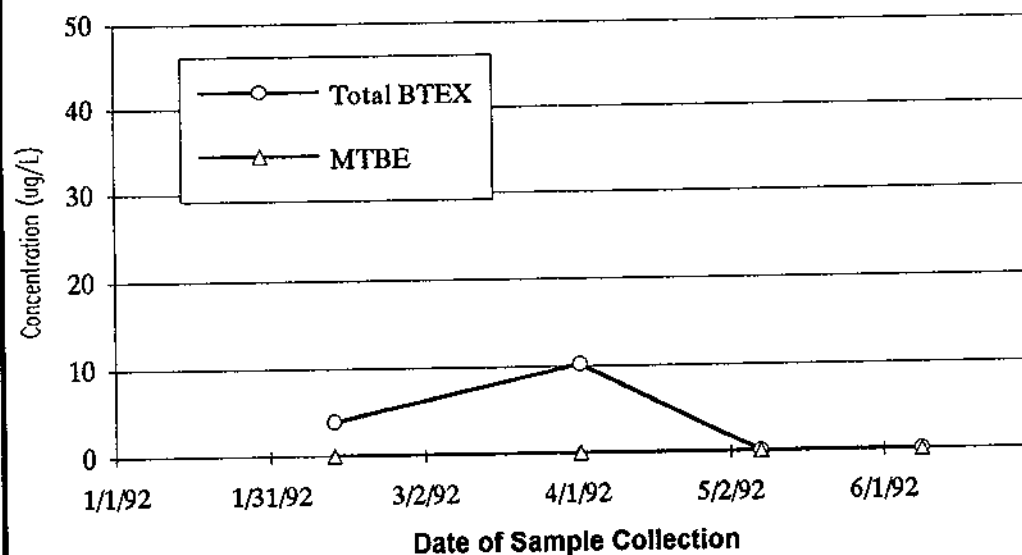


TABLE 1. Groundwater Quality Summary -MW2

PARAMETER	Sampling Date			
	2/13/92	4/2/92	5/8/92	6/9/92
Benzene	ND	7.9	ND	ND
Chlorobenzene	ND	ND	ND	ND
1,2-DCB	ND	ND	ND	ND
1,3-DCB	ND	ND	ND	ND
1,4-DCB	ND	ND	ND	ND
Ethylbenzene	ND	ND	ND	ND
Toluene	3.9	2.3	ND	ND
Xylenes	ND	ND	ND	ND
Total BTEX	3.9	10.2	ND	ND
MTBE	TBQ	ND	ND	ND
BTEX + MTBE	3.9	10.2	ND	ND

**FIGURE 6. Ascutney Cltgo MW3
BTEX and MTBE Concentrations**

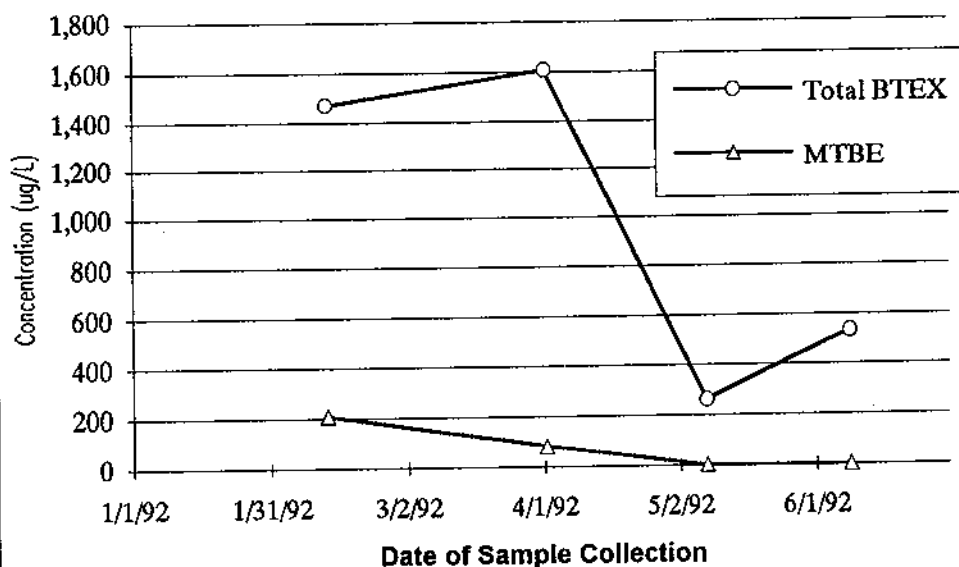


TABLE 2. Groundwater Quality Summary - MW3

PARAMETER	Sampling Date			
	2/13/92	4/2/92	5/8/92	6/9/92
Benzene	656	676	42	85
Chlorobenzene	ND	ND	ND	ND
1,2-DCB	ND	ND	ND	ND
1,3-DCB	ND	ND	ND	ND
1,4-DCB	ND	ND	ND	ND
Ethylbenzene	66	134	88	197
Toluene	341	286	6	ND
Xylenes	406	512	127	253
Total BTEX	1,469	1,608	262	535
MTBE	208	84	ND	ND
BTEX + MTBE	1,677	1,692	262	535

**FIGURE 7. Ascutney Citgo MW6
BTEX and MTBE Concentrations**

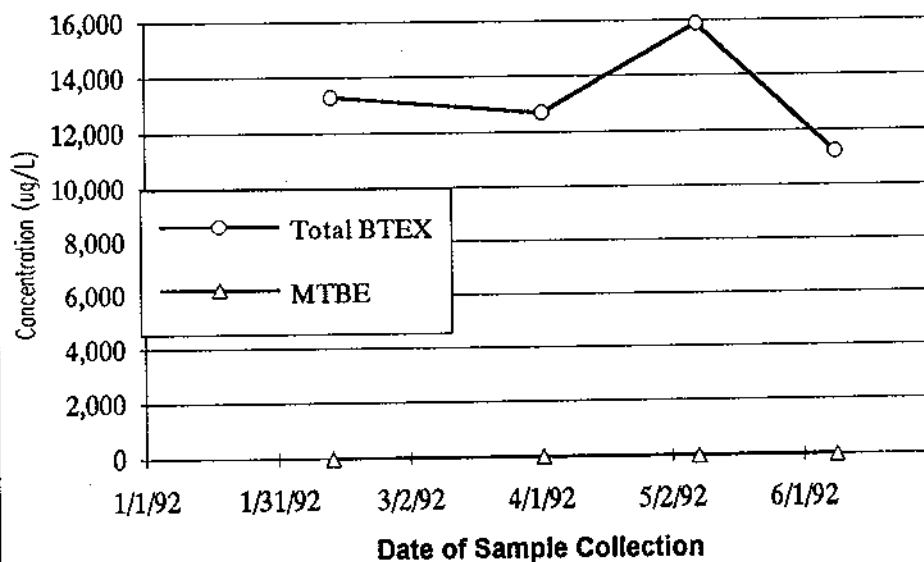


TABLE 3. Groundwater Quality Summary - MW6

PARAMETER	Sampling Date			
	2/13/92	4/2/92	5/8/92	6/9/92
Benzene	453	434	670	453
Chlorobenzene	ND	ND	ND	ND
1,2-DCB	ND	ND	ND	ND
1,3-DCB	ND	ND	ND	ND
1,4-DCB	ND	ND	ND	ND
Ethylbenzene	1,340	1,210	1,250	860
Toluene	3,720	3,680	6,450	4,660
Xylenes	7,790	7,360	7,510	5,250
Total BTEX	13,303	12,684	15,880	11,223
MTBE	ND	ND	ND	ND
BTEX + MTBE	13,303	12,684	15,880	11,223

**FIGURE 8. Wragg Supply Well
BTEX and MTBE Concentrations**

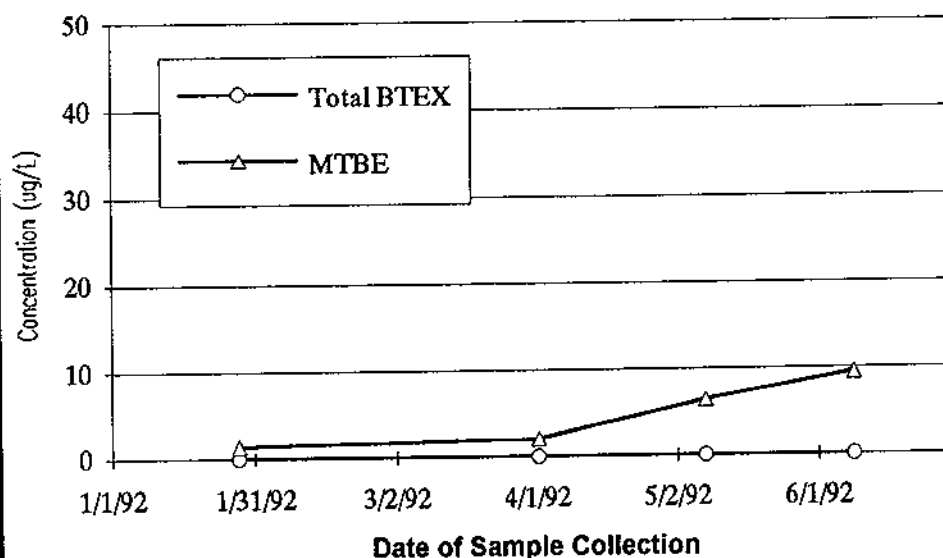


TABLE 4. Groundwater Quality Summary - Wragg Supply Well

PARAMETER	Sampling Date			
	1/28/92	4/2/92	5/8/92	6/9/92
Benzene	ND	ND	ND	ND
Chlorobenzene	ND	ND	ND	ND
1,2-DCB	ND	ND	ND	ND
1,3-DCB	ND	ND	ND	ND
1,4-DCB	ND	ND	ND	ND
Ethylbenzene	ND	ND	ND	ND
Toluene	ND	ND	ND	ND
Xylenes	ND	ND	ND	ND
Total BTEX	ND	ND	ND	ND
MTBE	1.34	2.0	6.44	9.6
BTEX + MTBE	1.34	2.0	6.44	9.6

**FIGURE 9. Citgo Supply Well
BTEX and MTBE Concentrations**

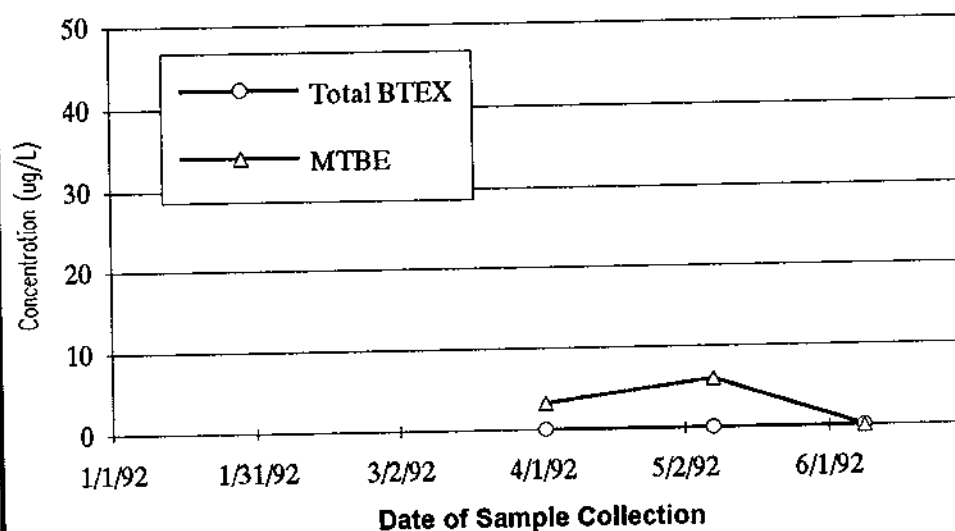
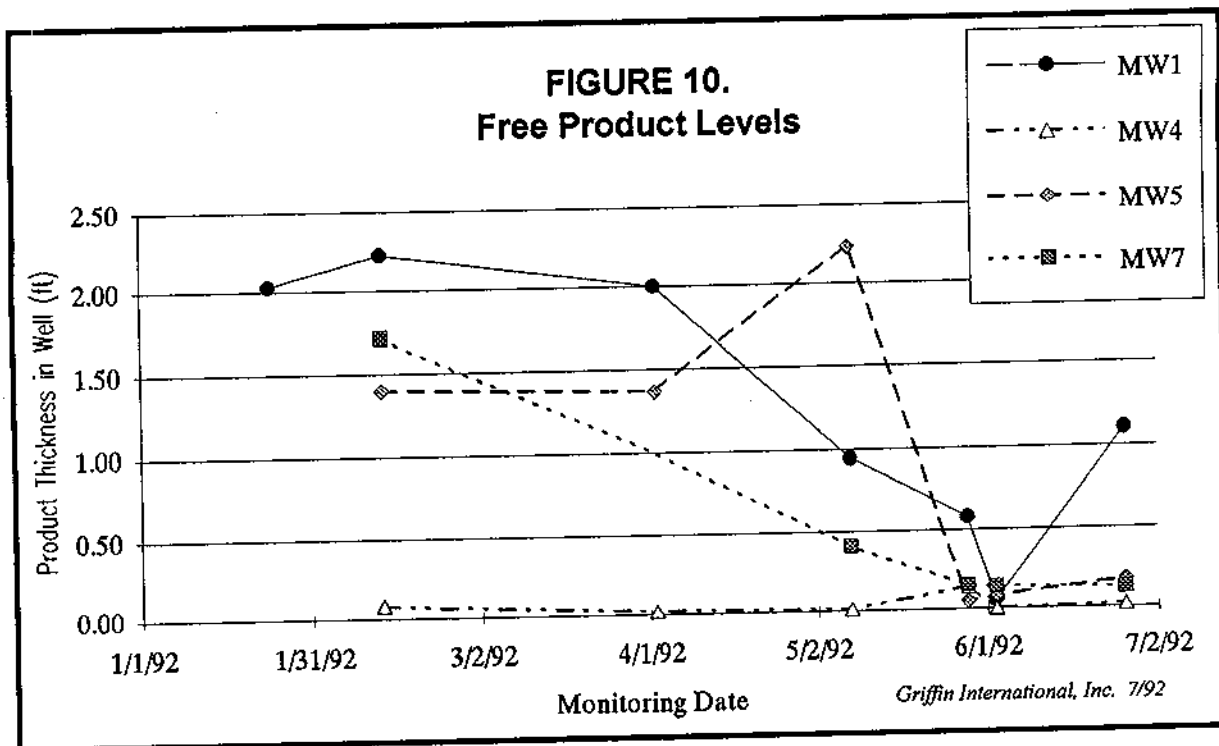


TABLE 5. Groundwater Quality Summary - Citgo Supply Well

PARAMETER	Sampling Date		
	4/2/92	5/8/92	6/9/92
Benzene	ND	ND	ND
Chlorobenzene	ND	ND	ND
1,2-DCB	ND	ND	ND
1,3-DCB	ND	ND	ND
1,4-DCB	ND	ND	ND
Ethylbenzene	ND	ND	ND
Toluene	ND	ND	ND
Xylenes	ND	ND	ND
Total BTEX	ND	ND	ND
MTBE	3.3	6.03	ND
BTEX + MTBE	3.3	6.03	ND



**TABLE 6. FREE PRODUCT LEVELS IN MONITORING WELLS
ASCUTNEY CITGO**

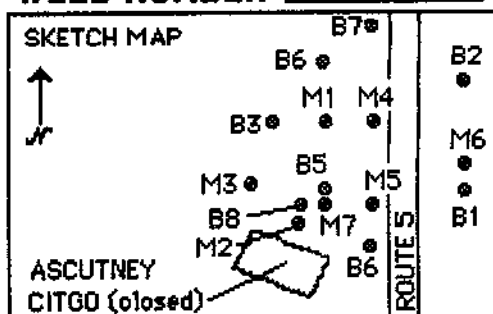
Date	Free Product Thickness (ft)				Notes
	MW1	MW4	MW5	MW7	
1/24/92	2.03	-	-	-	Daily bailing started on 1/24
2/13/92	2.22	0.08	1.40	1.71	
4/2/92	2.00	0.02	1.37	-	Spill buster pump installed in MW7 on 2/26
5/8/92	0.95	0.01	2.23	0.41	
5/29/92	0.58	0.14	0.05	0.15	Daily bailing stopped on 5/8/92 Spillbuster, Jr. installed in MW5 on 5/22
6/3/92	0.06	0.00	0.08	0.14	
6/26/92	1.11	0.02	0.18	0.13	

APPENDIX B

WELL LOGS

PROJECT ASCUTNEY CITGO
 LOCATION ASCUTNEY, VERMONT
 DATE DRILLED 21 JAN 92 TOTAL DEPTH OF HOLE 21'
 DIAMETER 6"
 SCREEN DIA. 2" LENGTH 10' SLOT SIZE .010"
 CASING DIA. 2" LENGTH 9.75' TYPE PVC
 DRILLING CO. TDS DRILLING METHOD HOLLOW STEM AUGER
 DRILLER PETE NEWSHAM LOG BY RON MILLER

WELL NUMBER MW-1

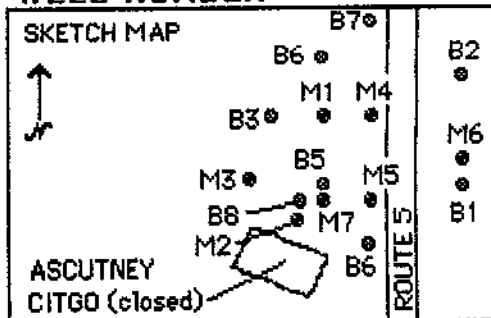


DEPTH IN FEET	WELL CONSTRUCTION	NOTES	BLOWS PER 6" OF SPOON & PID READINGS	DESCRIPTION / SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)	DEPTH IN FEET
0		ROAD BOX			0
1		WELL CAP		PAVEMENT	1
2		CONCRETE		Brown coarse-fine SAND, some gravel, dry, no odor	2
3			S1: Auger sample 1.6 PPM		3
4		NATIVE FILL			4
5		WELL RISER	S2: 8-8-4-4 2.0 PPM	Brown coarse-fine SAND, dry, no odor	5
6					6
7		BENTONITE		Brown med.-fine SAND, dry, no odor	7
8					8
9			S3: 3-4-5-6 10.6 PPM	Gray med.-fine SAND, dry, pet.odor	9
10		GRAVEL PACK		Brown coarse-fine SAND, dry, pet. odor	10
11					11
12		WELL SCREEN			12
13				Brown coarse-fine SAND, dry, odor	13
14			S4: 3-2-4-5 90 PPM	Brown med.-fine SAND, dry, odor	14
15				Brown fine SAND and SILT, wet, odor, sheen	15
16				Brown coarse-fine SAND, wet, odor	16
17				TOP OF GASOLINE LAYER	17
18				WATER TABLE	18
19			S5: 5-5-9-15 140 PPM	Gray coarse-fine SAND, tr. gravel, wet, odor, sheen	19
20		BOTTOM PLUG		Brown SAND and GRAVEL, wet, odor	20
21				BOTTOM OF EXPLORATION AT 21'	21
22					22
23					23
24					24
25					25
26					26

Griffin International
 REF:PAINT 57

PROJECT ASCUTNEY CITGO
 LOCATION ASCUTNEY, VERMONT
 DATE DRILLED 21 JAN 92 TOTAL DEPTH OF HOLE 17'
 DIAMETER 6"
 SCREEN DIA. 2" LENGTH 10' SLOT SIZE .010"
 CASING DIA. 2" LENGTH 6.75' TYPE PVC
 DRILLING CO. TDS DRILLING METHOD HOLLOW STEM AUGER
 DRILLER PETE NEWSHAM LOG BY RON MILLER

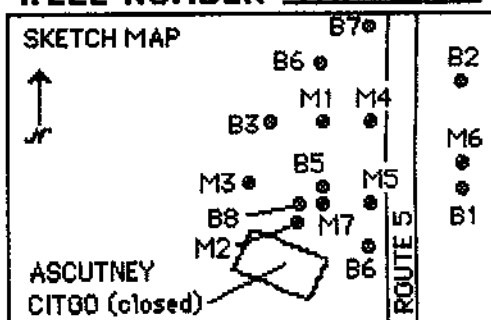
WELL NUMBER HW-2



DEPTH IN FEET	WELL CONSTRUCTION	NOTES	BLOWS PER 6" OF SPOON & PID READINGS	DESCRIPTION / SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)	DEPTH IN FEET
0		ROAD BOX			0
1		WELL CAP		PAVEMENT	1
2		CONCRETE	S1: Auger sample 2.4 PPM	Brown coarse-fine SAND, dry, no odor	2
3		NATIVE FILL			3
4		BENTONITE	S2: 3-4-6-6 2.8 PPM	Brown fine SAND and SILT, dry, slight odor	4
5		WELL RISER			5
6		GRAVEL PACK		Brown coarse-fine SAND and GRAVEL, dry, no odor	6
7		WELL SCREEN			7
8					8
9			S3: 6-4-3-4 0.7 PPM	Brown fine SAND, dry, no odor	9
10					10
11					11
12					12
13				Brown coarse-fine SAND and GRAVEL, dry no odor	13
14			S4: 12-15-16-19 9.2 PPM	Gray/Brown SAND and GRAVEL, some	14
15				Clay, wet, no odor WATER TABLE	15
16				Glacial Till w/ schist frags., wet, no odor	16
17		BOTTOM PLUG			17
18				AUGER REFUSAL AT 17'	18
19				BOTTOM OF EXPLORATION AT 17'	19
20					20
21		BEDROCK			21
22					22
23					23
24					24
25					25
26					26

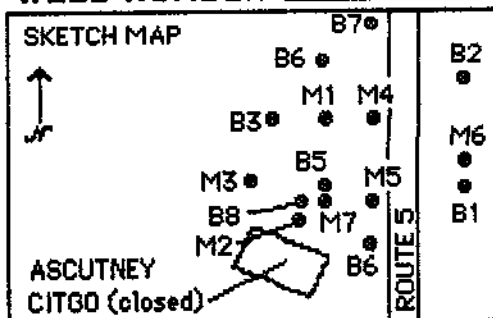
PROJECT ASCUTNEY CITGO
 LOCATION ASCUTNEY, VERMONT
 DATE DRILLED 21 JAN 92 TOTAL DEPTH OF HOLE 17'
 DIAMETER 6"
 SCREEN DIA. 2" LENGTH 10' SLOT SIZE .010"
 CASING DIA. 2" LENGTH 6.75' TYPE PVC
 DRILLING CO. TDS DRILLING METHOD HOLLOW STEM AUGER
 DRILLER PETE NEWSHAM LOG BY RON MILLER

WELL NUMBER MW-3



DEPTH IN FEET	WELL CONSTRUCTION	NOTES	BLOWS PER 6" OF SPOON & PID READINGS	DESCRIPTION / SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)	DEPTH IN FEET
0		ROAD BOX			0
1		WELL CAP		PAVEMENT	1
2		CONCRETE	S1: Auger sample 1.8 PPM	Brown med.-fine SAND, dry, no odor	2
3		NATIVE FILL			3
4		BENTONITE	S2: 11-12-12-10 1.0 PPM	Brown fine SAND and SILT, dry, no odor	4
5					5
6		WELL RISER			6
7		GRAVEL PACK			7
8					8
9		WELL SCREEN	S3: 3-2-2-3 50 PPM	Brown very-fine SAND and SILT, dry, odor	9
10					10
11					11
12					12
13					13
14			S4: 9-60R 17.8 PPM	Gray/Brown SAND and GRAVEL, some schist frags, wet, odor	14
15				WATER TABLE	15
16					16
17		BOTTOM PLUG		BOTTOM OF EXPLORATION AT 17'	17
18				AUGER REFUSAL AT 17'	18
19					19
20					20
21					21
22		BEDROCK			22
23					23
24					24
25					25
26					26

Griffin International
 REF: PAINT 57

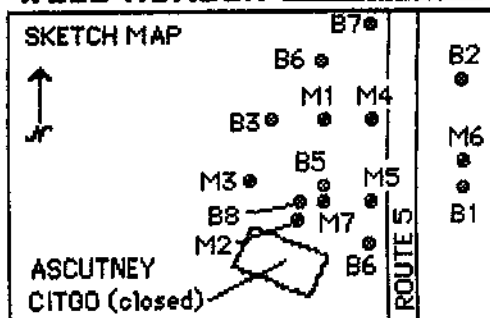
PROJECT ASCUTNEY CITGOLOCATION ASCUTNEY, VERMONTDATE DRILLED 6 FEB 92 TOTAL DEPTH OF HOLE 21'DIAMETER 6"SCREEN DIA. 2" LENGTH 10' SLOT SIZE .010"CASING DIA. 2" LENGTH TYPE PVCDRILLING CO. TDS DRILLING METHOD HOLLOW STEM AUGERDRILLER PETE NEWSHAM LOG BY RON MILLERWELL NUMBER MW-4

DEPTH IN FEET	WELL CONSTRUCTION	NOTES	BLOWS PER 5" OF SPOON & PID READINGS	DESCRIPTION / SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)	DEPTH IN FEET
0		ROAD BOX			0
1		WELL CAP		PAVEMENT	1
2		CONCRETE			2
3					3
4		NATIVE FILL			4
5		WELL RISER	S1: 3-2-1-3 5.4 PPM	Brown fine SAND, dry, no odor	5
6					6
7		BENTONITE			7
8					8
9			2 S2: 3-5-5-6 28 PPM	Brown fine SAND, odor, dry	9
10		GRAVEL PACK			10
11				Tan coarse-fine SAND, odor, dry	11
12					12
13		WELL SCREEN			13
14					14
15			S3: 2-3-3-5 190 PPM	Brown fine SAND, some silt, wet, strong odor	15
16				WATER TABLE	16
17					17
18					18
19				Brown coarse-fine SAND, wet, odor	19
20		BOTTOM PLUG	S4: 2-2-1-3 150 PPM	Brown fine SAND, wet, odor	20
21				Brown coarse-fine SAND, wet, odor	21
22				BOTTOM OF EXPLORATION AT 21'	22
23					23
24					24
25					25
26					26

Griffin International
REF: PAINT 57

PROJECT ASCUTNEY CITGO
 LOCATION ASCUTNEY, VERMONT
 DATE DRILLED 6 FEB 92 TOTAL DEPTH OF HOLE 21'
 DIAMETER 6"
 SCREEN DIA. 2" LENGTH 10' SLOT SIZE .010"
 CASING DIA. 2" LENGTH 9.75' TYPE PVC
 DRILLING CO. TDS DRILLING METHOD HOLLOW STEM AUGER
 DRILLER PETE NEWSHAM LOG BY RON MILLER

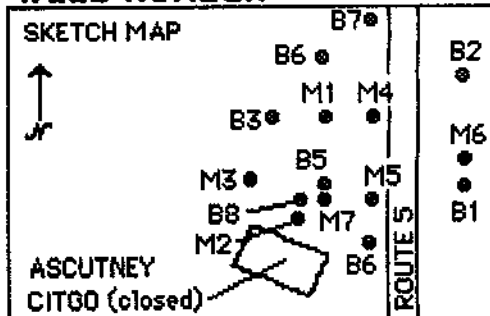
WELL NUMBER MW-5



DEPTH IN FEET	WELL CONSTRUCTION	NOTES	BLOWS PER 6" OF SPOON & PID READINGS	DESCRIPTION / SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)	DEPTH IN FEET
0		ROAD BOX			0
1		WELL CAP		PAVEMENT	1
2		CONCRETE		Brown fine SAND, dry, no odor	2
3					3
4		NATIVE FILL		Brown fine SAND, dry, no odor	4
5		WELL RISER	S1: 4-2-3-4 6.8 PPM		5
6					6
7		BENTONITE			7
8					8
9					9
10			S2: 3-4-5-6 14.0 PPM	Brown fine SAND, dry, no odor	10
11		GRAVEL PACK		Tan coarse-fine SAND, dry, slight odor	11
12					12
13		WELL SCREEN		Brown fine SAND, dry, odor	13
14				Tan coarse-fine SAND, dry, odor	14
15			S3: 3-2-4-6 200 PPM	Brown fine SAND, wet, odor	15
16				TOP OF GASOLINE	16
17				WATER TABLE	17
18					18
19				Brown coarse-fine SAND, wet, odor	19
20		BOTTOM PLUG	S4: 3-7-13-11 110 PPM	Brown SAND and GRAVEL, wet, odor	20
21				Brown SILT, wet, odor	21
22				SPOON REFUSAL AT 21'	22
23				BOTTOM OF EXPLORATION AT 20'	23
24					24
25					25
26		BEDROCK			26

PROJECT ASCUTNEY CITGO
 LOCATION ASCUTNEY, VERMONT
 DATE DRILLED 6 FEB 92 TOTAL DEPTH OF HOLE 21'
 DIAMETER 6"
 SCREEN DIA. 2" LENGTH 10' SLOT SIZE .010"
 CASING DIA. 2" LENGTH 9.75' TYPE PVC
 DRILLING CO. TDS DRILLING METHOD HOLLOW STEM AUGER
 DRILLER PETE NEWSHAM LOG BY RON MILLER

WELL NUMBER MW-6



DEPTH IN FEET	WELL CONSTRUCTION	NOTES	BLOWS PER 6" OF SPOON & PID READINGS	DESCRIPTION / SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)	DEPTH IN FEET
0		ROAD BOX			0
1		WELL CAP		PAVEMENT	1
2		CONCRETE			2
3					3
4		NATIVE FILL			4
5		WELL RISER	S1: 6-5-4-6 8.8 PPM	Brown fine SAND, dry, no odor	5
6				Brown SAND and GRAVEL, dry, no odor	6
7		BENTONITE			7
8					8
9					9
10			S2: 4-3-3-3 9.8 PPM	Tan med-fine SAND, dry, no odor	10
11		GRAVEL PACK		Tan coarse-fine SAND, dry, no odor	11
12					12
13		WELL SCREEN			13
14				Brown fine SAND, dry, slight odor	14
15			S3: 3-2-3-4 170 PPM	Brown fine SAND and SILT, wet, odor	15
16				WATER TABLE ▼ Brown coarse-fine SAND, wet, odor	16
17					17
18					18
19					19
20		BOTTOM PLUG	S4: 2-2-5-7 180 PPM	Med.-fine SAND, wet, odor	20
21				BOTTOM OF EXPLORATION AT 21'	21
22					22
23					23
24					24
25					25
26					26

PROJECT ASCUTNEY CITGO

LOCATION ASCUTNEY, VERMONT

DATE DRILLED 6 FEB 92 TOTAL DEPTH OF HOLE 18.5'

DIAMETER 6"

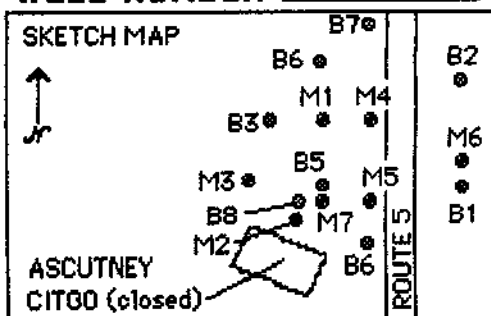
SCREEN DIA. 2" LENGTH 10' SLOT SIZE .010"

CASING DIA. 2" LENGTH 8.25' TYPE PVC

DRILLING CO. TDS DRILLING METHOD HOLLOW STEM AUGER

DRILLER PETE NEWSHAM LOG BY RON MILLER

WELL NUMBER MW-7



DEPTH IN FEET	WELL CONSTRUCTION	NOTES	BLOWS PER 6" OF SPOON & PID READINGS	DESCRIPTION / SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)	DEPTH IN FEET
0	ROAD BOX			PAVEMENT	0
1	WELL CAP				1
2	CONCRETE				2
3	NATIVE FILL			Brown fine SAND, dry no odor	3
4					4
5			S1: 5-5-4-11 3.2 PPM	Poor recovery in spoon-only tip full of Brown fine SAND, dry, no odor	5
6	BENTONITE				6
7	WELL RISER				7
8					8
9	GRAVEL PACK		S2: 4-3-4-4 6.4 PPM	Brown fine SAND, dry, no odor Stratified and cross-bedded	9
10	WELL SCREEN				10
11					11
12					12
13					13
14			S3: 3-3-4-4 220 PPM	Brown fine SAND, dry, odor	14
15				Brown fine SAND, wet, odor TOP OF GASOLINE	15
16				Brown coarse-fine SAND, wet odor	16
17				WATER TABLE	17
18	BOTTOM PLUG				18
19				AUGER REFUSAL AT 18.5'	19
20				BOTTOM OF EXPLORATION AT 18.5'	20
21					21
22	BEDROCK				22
23					23
24					24
25					25
26					26

Griffin International
REF: PAINT 37

PROJECT ASCUTNEY CITGO

LOCATION ASCUTNEY, VERMONT

DATE DRILLED 25 MARCH 92 TOTAL DEPTH OF HOLE 22'

DIAMETER 6"

SCREEN DIA. 2" LENGTH 10' SLOT SIZE .010"

CASING DIA. 2" LENGTH 11.75' TYPE PVC

DRILLING CO. TDS DRILLING METHOD HOLLOW STEM AUGER

DRILLER PETE NEWSHAM LOG BY RON MILLER

WELL NUMBER MW - 8

SKETCH MAP

ROUTE

5

MW1

MW6

MW9

Westney

Wragg

Ascutney

Citgo

Murray

MW8

Russell

MW9

MW6

Westney

Wragg

MW10

DEPTH IN FEET	WELL CONSTRUCTION	NOTES	BLOWS PER 6" OF SPOON & PID READINGS	DESCRIPTION / SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)	DEPTH IN FEET
0		ROAD BOX			0
1		WELL CAP		PAVEMENT	1
2		CONCRETE			2
3					3
4		NATIVE FILL			4
5		WELL RISER	S1: 4-4-5-6 16 ppm	Brown med.-fine SAND, dry, no odor	5
6				Tan med.-fine SAND, stratified, dry, no odor	6
7					7
8					8
9		BENTONITE		Tan med.-fine SAND, stratified, dry, slight odor	9
10			S2: 4-4-4-5 4.8 ppm	Brown fine SAND, w/.5" silt layer at 10.2', dry, slight odor	10
11				Brown fine SAND and SILT, dry, slight odor	11
12		GRAVEL PACK			12
13					13
14		WELL SCREEN	S3: 5-6-5-6 2.2 ppm	Tan SAND and GRAVEL, dry, slight odor	14
15				Tan coarse-fine SAND, dry, slight odor	15
16					16
17				WATER TABLE	17
18					18
19					19
20			S4: 2-2-3-2 2.4 ppm	Brown fine SAND and SILT, wet, no odor	20
21					21
22		BOTTOM PLUG		AUGER REFUSAL AT 22' BOTTOM OF EXPLORATION AT 22'	22
23					23
24		BEDROCK			24
25					25
26					26

Griffin International
REF: PAINT 62

PROJECT ASCUTNEY CITGOLOCATION ASCUTNEY, VERMONTDATE DRILLED 25 MARCH 92 TOTAL DEPTH OF HOLE 23'DIAMETER 6"SCREEN DIA. 2" LENGTH 10' SLOT SIZE .010"CASING DIA. 2" LENGTH 12.75' TYPE PVCDRILLING CO. TDS DRILLING METHOD HOLLOW STEM AUGERDRILLER PETE NEWSHAM LOG BY RON MILLERWELL NUMBER MW - 9

SKETCH MAP 	
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DEPTH IN FEET	WELL CONSTRUCTION	NOTES	BLOWS PER 6" OF SPOON & PID READINGS	DESCRIPTION / SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)	DEPTH IN FEET
0		ROAD BOX			0
1		WELL CAP			1
2		CONCRETE			2
3					3
4		NATIVE FILL			4
5		WELL RISER	S1: 6-6-5-7 1.8 ppm	Brown fine SAND, dry, no odor	5
6					6
7					7
8					8
9					9
10			S2: 3-4-4-5 2.1 ppm	Tan med-fine SAND, stratified, dry, no odor	10
11		BENTONITE		Tan coarse-fine SAND, dry, no odor	11
12					12
13		GRAVEL PACK			13
14			S3: 3-5-3-4 1.5 ppm	Tan med.-fine SAND, dry, no odor	14
15		WELL SCREEN		WATER TABLE ▼	15
16				Brown fine SAND and SILT, wet, no odor	16
17					17
18					18
19			S4: 5-6-7-6 2.6 ppm	Dark Brown SAND and GRAVEL, wet, no odor	19
20					20
21					21
22					22
23		BOTTOM PLUG		AUGER REFUSAL AT 23'	23
24				BOTTOM OF EXPLORATION AT 23'	24
25		BEDROCK			25
26					26

Griffin International

REF: PAINT 62

PROJECT ASCUTNEY CITGO

LOCATION ASCUTNEY, VERMONT

DATE DRILLED 25 MARCH 92 TOTAL DEPTH OF HOLE 23'

DIAMETER 6"

SCREEN DIA. 2" LENGTH 10' SLOT SIZE .010"

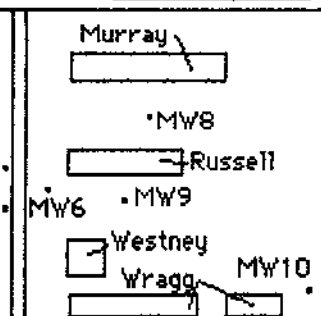
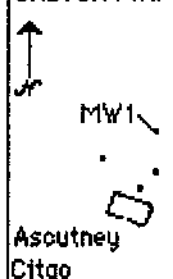
CASING DIA. 2" LENGTH 12.75' TYPE PVC

DRILLING CO. TDS DRILLING METHOD HOLLOW STEM AUGER

DRILLER PETE NEWSHAM LOG BY RON MILLER

WELL NUMBER MW - 10

SKETCH MAP



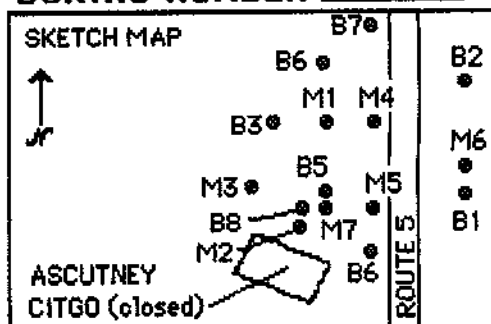
DEPTH IN FEET	WELL CONSTRUCTION	NOTES	BLOWS PER 6" OF SPOON & PID READINGS	DESCRIPTION / SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)	DEPTH IN FEET
0	ROAD BOX	WELL CAP			0
1	CONCRETE				1
2					2
3		NATIVE FILL			3
4					4
5	WELL RISER		S1: 2-3-4-3 0.4 ppm	Interbedded Brown and Tan med.-fine SAND, stratified, dry, no odor	5
6					6
7					7
8					8
9					9
10			S2: 3-2-5-3 3.1 ppm	Tan med.-fine SAND, stratified, dry, no odor	10
11		BENTONITE			11
12					12
13		GRAVEL PACK			13
14					14
15		WELL SCREEN	S3: 6-4-4-7 2.9 ppm	Brown med.-fine SAND, dry, no odor	15
16				Tan coarse-fine SAND, dry, no odor	16
17					17
18				WATER TABLE	18
19					19
20			S4: 6-6-3-8 2.8 ppm	Dark Brown SAND and GRAVEL, wet, no odor	20
21					21
22					22
23		BOTTOM PLUG			23
24					24
25			S5: 3-4-3 3.2 ppm	Dark Brown SAND and GRAVEL, wet, no odor	25
26				BOTTOM OF EXPLORATION AT 25.5'	26

Griffin International

REF: PAINT 62

PROJECT ASCUTNEY CITGO
 LOCATION ASCUTNEY, VERMONT
 DATE DRILLED 5 FEB 92 TOTAL DEPTH OF HOLE 16'
 DIAMETER 6"
 SCREEN DIA. LENGTH SLOT SIZE
 CASING DIA. LENGTH TYPE
 DRILLING CO. TDS DRILLING METHOD HOLLOW STEM AUGER
 DRILLER PETE NEWSHAM LOG BY RON MILLER

BORING NUMBER B1



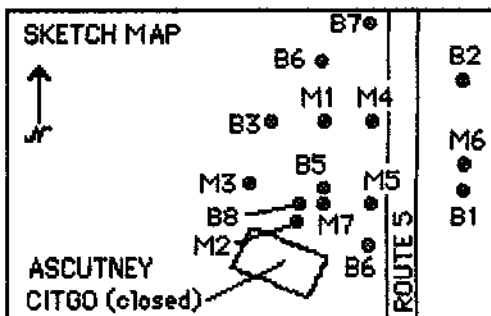
DEPTH IN FEET	WELL CONSTRUCTION	NOTES	BLOWS PER 6" OF SPOON & PID READINGS	DESCRIPTION / SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)	DEPTH IN FEET
0	Temporary PVC	Temp. Well		PAVEMENT	0
1	2" Well Installed	Checked with			1
2		Bailer after 1 HR			2
3	0-11' riser	No Free Product in		Brown coarse-fine SAND, tr silt and gravel, dry, no odor	3
4	11-16' screen	Well. Removed Well and Backfilled to Grade.	S1: 5-3-3-4 6.6 PPM	Brown fine SAND, dry, no odor	4
5	No sand pack				5
6	No bentonite				6
7					7
8					8
9					9
10			S2: 4-4-4-3 8.0 PPM	Brown fine SAND, dry, no odor	10
11				Tan coarse-fine SAND, dry, no odor	11
12					12
13					13
14					14
15			S3: 3-3-5-6 160 PPM	Brown fine SAND, some silt, moist, odor	15
16				WATER TABLE Tan coarse-fine SAND, wet, odor	16
17				BOTTOM OF EXPLORATION AT 16'	17
18					18
19					19
20					20
21					21
22					22
23					23
24					24
25					25
26					26

Griffin International
 REF: PAINT 57

PROJECT ASCUTNEY CITGOLOCATION ASCUTNEY, VERMONTDATE DRILLED 5 FEB 92 TOTAL DEPTH OF HOLE 25.5'DIAMETER 6"

SCREEN DIA. _____ LENGTH _____ SLOT SIZE _____

CASING DIA. _____ LENGTH _____ TYPE _____

DRILLING CO. TDS DRILLING METHOD HOLLOW STEM AUGERDRILLER PETE NEWSHAM LOG BY RON MILLERBORING NUMBER B 2

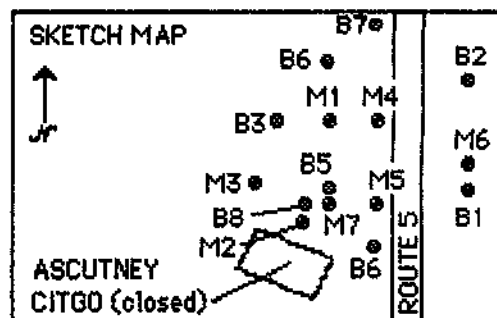
DEPTH IN FEET	WELL CONSTRUCTION	NOTES	BLOWS PER 6" OF SPOON & PID READINGS	DESCRIPTION / SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)	DEPTH IN FEET
0		No Temporary Well Installed Due to Lack of Significant Soil Contamination			0
1					1
2					2
3					3
4					4
5			S1: 3-4-3-3 10.0 PPM	Brown fine SAND, dry, no odor	5
6					6
7					7
8					8
9					9
10			S2: 3-3-3-3 6.8 PPM	Tan coarse-fine SAND, dry, slight odor	10
11					11
12					12
13					13
14					14
15			S3: 4-3-4-4 8.2 PPM	Brown fine SAND, some silt, moist slight odor	15
16				Tan coarse-fine SAND, wet, slight odor	16
17					17
18					18
19					19
20			S4: 3-2-4-5 8.8 PPM	Brown coarse-fine SAND, wet, no odor	20
21					21
22					22
23					23
24					24
25			S5: 4-5-10-R(60) 9.5 PPM	Brown coarse-fine SAND, wet, no odor	25
26				Brown SILT, tr. fine sand, wet, no odor AUGER and SPOON REFUSAL at 25.5'	26

Griffin International

REF: PAINT 57

PROJECT ASCUTNEY CITGO
 LOCATION ASCUTNEY, VERMONT
 DATE DRILLED 5 FEB 92 TOTAL DEPTH OF HOLE 17'
 DIAMETER 6"
 SCREEN DIA. _____ LENGTH _____ SLOT SIZE _____
 CASING DIA. _____ LENGTH _____ TYPE _____
 DRILLING CO. TDS DRILLING METHOD HOLLOW STEM AUGER
 DRILLER PETE NEWSHAM LOG BY RON MILLER

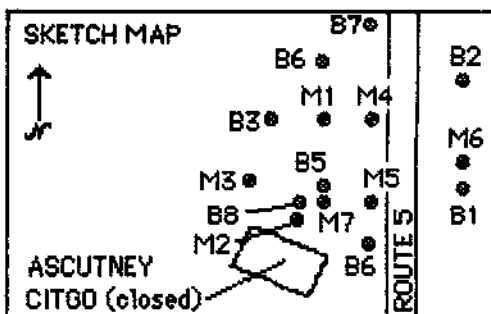
BORING NUMBER B3



DEPTH IN FEET	WELL CONSTRUCTION	NOTES	BLOWS PER 6" OF SPOON & PID READINGS	DESCRIPTION / SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)	DEPTH IN FEET
0					0
1	Temporary PVC	Temp. Well			1
2	2" Well Installed	Checked with			2
3	0-12' riser	Bailer after 1 HR			3
4	12-17' screen	No Free Product in			4
5	No sand pack	Well. Removed Well	S1: 6-2-2-2	Brown fine SAND, dry, odor	5
6	No bentonite	and Backfilled to	240 PPM		6
7		Grade.			7
8					8
9					9
10			S2: 3-3-3-3	Brown fine SAND, dry, odor	10
11			100 PPM		11
12					12
13					13
14				Brown fine SAND, moist, odor	14
15			S3: 3-4-3-4	WATER TABLE	15
16			160 PPM	Brown fine SAND, wet, odor	16
17					17
18				BOTTOM OF EXPLORATION AT 17'	18
19					19
20					20
21					21
22					22
23					23
24					24
25					25
26					26

PROJECT ASCUTNEY CITGO
 LOCATION ASCUTNEY, VERMONT
 DATE DRILLED 5 FEB 92 TOTAL DEPTH OF HOLE 17'
 DIAMETER 6"
 SCREEN DIA. _____ LENGTH _____ SLOT SIZE _____
 CASING DIA. _____ LENGTH _____ TYPE _____
 DRILLING CO. TDS DRILLING METHOD HOLLOW STEM AUGER
 DRILLER PETE NEWSHAM LOG BY RON MILLER

BORING NUMBER B 4



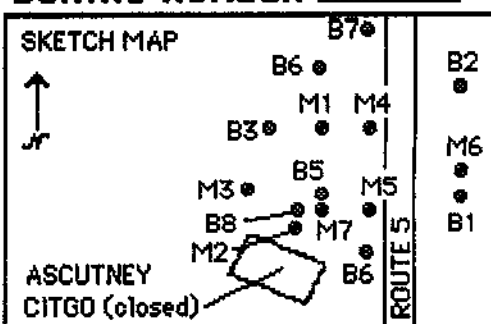
DEPTH IN FEET	WELL CONSTRUCTION	NOTES	BLOWS PER 6" OF SPOON & PID READINGS	DESCRIPTION / SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)	DEPTH IN FEET
0				PAVEMENT	0
1	Temporary PVC 2" Well Installed	Temp. Well Checked with Bailer after 1 HR			1
2		No Free Product in Well. Removed Well and Backfilled to Grade.			2
3	0-12' riser				3
4	12-17' screen		S1: 10-9-6-6	Tan coarse-fine SAND, dry, no odor	4
5	No sand pack		5.2 PPM	Brown fine SAND, dry, no odor	5
6	No bentonite				6
7					7
8					8
9			S2: 4-5-4-5	Brown fine SAND, dry, odor	9
10			7.2 PPM		10
11				Tan coarse-fine SAND, dry, odor	11
12					12
13					13
14			S3: 2-2-3-5	Brown fine SAND, moist, odor	14
15			120 PPM	Brown fine SAND, wet, odor	15
16				Tan coarse-fine SAND, wet, odor	16
17					17
18				BOTTOM OF EXPLORATION AT 17'	18
19					19
20					20
21					21
22					22
23					23
24					24
25					25
26					26

Griffin International
 REF: PAINT 57

PROJECT ASCUTNEY CITGOLOCATION ASCUTNEY, VERMONTDATE DRILLED 5 FEB 92 TOTAL DEPTH OF HOLE 17'DIAMETER 6"

SCREEN DIA. _____ LENGTH _____ SLOT SIZE _____

CASING DIA. _____ LENGTH _____ TYPE _____

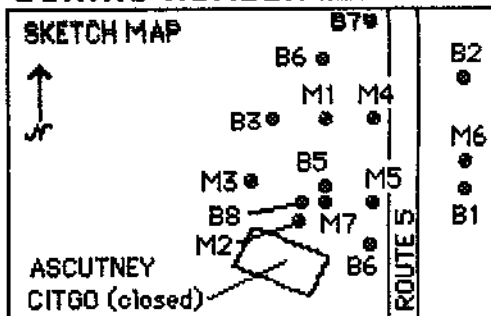
DRILLING CO. TDS DRILLING METHOD HOLLOW STEM AUGERDRILLER PETE NEWSHAM LOG BY RON MILLERBORING NUMBER B5

DEPTH IN FEET	WELL CONSTRUCTION	NOTES	BLOWS PER 6" OF SPOON & PID READINGS	DESCRIPTION / SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)	DEPTH IN FEET
0	Temporary PVC	Temp. Well		CONCRETE	0
1	2" Well Installed	Checked with			1
2	0-12' riser	Bailer after 1 HR.			2
3	12-17' screen	11" Free Product in			3
4	No sand pack	Well. Removed Well			4
5	No bentonite	and Backfilled to	S1: 4-4-4-5	Brown fine SAND, dry, no odor	5
6		Grade.	8.6 PPM		6
7					7
8					8
9			S2: 4-5-4-8	Brown fine SAND, dry, slight odor	9
10			18.0 PPM	Brown fine SAND, dry, odor	10
11				Tan coarse-fine SAND, dry, odor	11
12					12
13					13
14			S3: 3-3-3-3	Brown fine SAND, moist, odor	14
15			180 PPM	Brown fine SAND, wet, odor	15
16				Tan coarse-fine SAND, wet, odor	16
17				BOTTOM OF EXPLORATION AT 17'	17
18					18
19					19
20					20
21					21
22					22
23					23
24					24
25					25
26					26

PROJECT ASCUTNEY CITGOLOCATION ASCUTNEY, VERMONTDATE DRILLED 5 FEB 92 TOTAL DEPTH OF HOLE 17'DIAMETER 6"

SCREEN DIA. _____ LENGTH _____ SLOT SIZE _____

CASING DIA. _____ LENGTH _____ TYPE _____

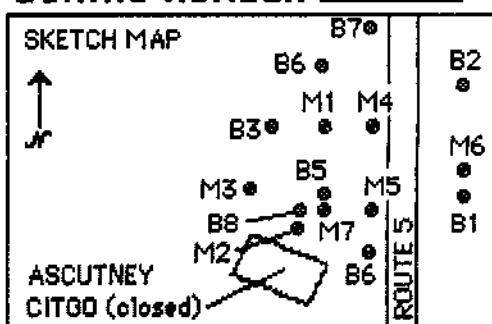
DRILLING CO. TDS DRILLING METHOD HOLLOW STEM AUGERDRILLER PETE NEWSHAM LOG BY RON MILLERBORING NUMBER B6

DEPTH IN FEET	WELL CONSTRUCTION	NOTES	BLOWS PER 6" OF SPOON & PID READINGS	DESCRIPTION / SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)	DEPTH IN FEET
0	Temporary PVC 2" Well installed	Temp. Well Checked with Bailer after 1 HR		PAVEMENT	0
1		No Free Product in Well. Removed Well and Backfilled to Grade.			1
2	0-12' riser				2
3	12-17' screen				3
4	No sand pack				4
5	No bentonite		S1: 8-5-6-7 12.0 PPM	Brown fine SAND, dry, slight odor	5
6					6
7					7
8					8
9					9
10			S2: 4-3-3-5 14.8 PPM	Brown fine SAND, dry, no odor	10
11				Tan coarse-fine SAND, dry, slight odor	11
12					12
13					13
14				WATER TABLE Brown fine SAND, dry, slight odor	14
15			S3: 3-3-4-4 124 PPM	Brown fine SAND, wet, odor	15
16					16
17				BOTTOM OF EXPLORATION AT 17'	17
18					18
19					19
20					20
21					21
22					22
23					23
24					24
25					25
26					26

Griffin International
REF:PAINT 57

PROJECT ASCUTNEY CITGO
 LOCATION ASCUTNEY, VERMONT
 DATE DRILLED 5 FEB 92 TOTAL DEPTH OF HOLE 17'
 DIAMETER 6"
 SCREEN DIA. _____ LENGTH _____ SLOT SIZE _____
 CASING DIA. _____ LENGTH _____ TYPE _____
 DRILLING CO. TDS DRILLING METHOD HOLLOW STEM AUGER
 DRILLER PETE NEWSHAM LOG BY RON MILLER

BORING NUMBER B7



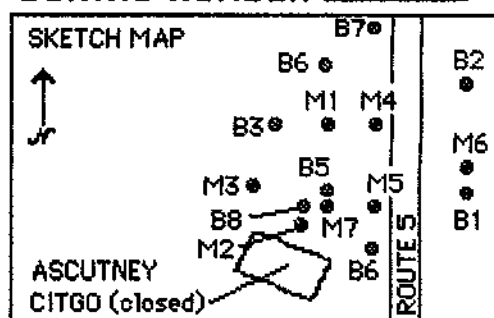
DEPTH IN FEET	WELL CONSTRUCTION	NOTES	BLOWS PER 6" OF SPOON & PID READINGS	DESCRIPTION / SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)	DEPTH IN FEET
0	Temporary PVC 2" Well Installed	Temp. Well Checked with Bailer after 1 HR No Free Product in Well. Removed Well and Backfilled to Grade.	S1: 5-5-5-5 10.6 PPM	PAVEMENT	0
1					1
2	0-12' riser 12-17' screen				2
3					3
4	No sand pack No bentonite				4
5				Brown fine SAND, dry, no odor	5
6					6
7					7
8					8
9				Brown fine SAND, dry slight odor	9
10				Tan coarse-fine SAND, dry, slight odor	10
11					11
12					12
13					13
14				WATER TABLE Brown fine SAND, moist, slight odor ▼	14
15				Brown SILT and fine SAND, wet, slight odor	15
16					16
17				BOTTOM OF EXPLORATION AT 17'	17
18					18
19					19
20					20
21					21
22					22
23					23
24					24
25					25
26					26

Griffin International
 REF: PAINT 58

PROJECT ASCUTNEY CITGOLOCATION ASCUTNEY, VERMONTDATE DRILLED 6 FEB 92 TOTAL DEPTH OF HOLE 16.5'DIAMETER 6"

SCREEN DIA. _____ LENGTH _____ SLOT SIZE _____

CASING DIA. _____ LENGTH _____ TYPE _____

DRILLING CO. TDS DRILLING METHOD HOLLOW STEM AUGERDRILLER PETE NEWSHAM LOG BY RON MILLERBORING NUMBER B8

DEPTH IN FEET	WELL CONSTRUCTION	NOTES	BLOWS PER 6" OF SPOON & PID READINGS	DESCRIPTION / SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)	DEPTH IN FEET
0	Temporary PVC	Temp. Well		PAVEMENT	0
1	2" Well Installed	Checked with			1
2		Bailer after 1 HR		Brown fine SAND, dry, no odor	2
3	0-11.5' riser	No Water in			3
4	11.5-16.5' screen	Well. Removed Well			4
5	No sand pack	and Backfilled to	S1: 5-3-2-5	Poor recovery: Only tip of spoon	5
6	No bentonite	Grade.	0.8 PPM	Brown fine sand, dry, no odor	6
7					7
8					8
9			S2: 4-3-4-4	Brown fine SAND, dry, no odor	9
10			0.8 PPM		10
11					11
12					12
13					13
14			S3: 3-5-10-16	Brown med.-fine SAND, dry, odor	14
15			210 PPM	Brown SAND and GRAVEL, dry, odor	15
16					16
17				AUGER REFUSAL AT 16.5'	17
18				BOTTOM OF EXPLORATION AT 16.5'	18
19					19
20					20
21					21
22					22
23					23
24					24
25					25
26					26

Griffin International
REF: PAINT 58

APPENDIX C
WATER LEVEL DATA

DATE: 2/13/92

[illegible]

COMMENTS:

DATE: 4/2/92

[illegible]

COMMENTS:

DATE: 5/8/92

COMMENTS:

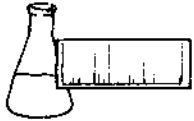
DATE: 6/9/92

COMMENTS:

1. Interface probe malfunctioning: Only recorded First liquid encountered. Presence of free product subsequently checked by bailer.
2. ^{Some} TOC elevations altered during remedial installation & Resurveyed.
3. Depths not measured. Product pump installed in well.

APPENDIX D
LABORATORY REPORT FORMS

RECEIVED FEB 10 1992



ENDYNE, INC.

Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

LABORATORY REPORT

EPA METHOD 602 -- PURGEABLE AROMATICS

CLIENT: Griffin International
PROJECT NAME: Ascutney Citgo
REPORT DATE: February 7, 1992
SAMPLER: Ron Miller
DATE SAMPLED: January 28, 1992
DATE RECEIVED: January 28, 1992

PROJECT CODE: GLAS6782
ANALYSIS DATE: February 5, 1992
STATION: Wragg Supply
REF.#: 27,844
TIME SAMPLED: 14:30

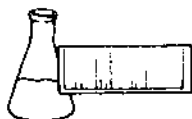
<u>Parameter</u>	<u>Minimum Detection Limit</u>	<u>Concentration (ug/L)</u>
Benzene	2.	ND ¹
Chlorobenzene	1.	ND
1,2-Dichlorobenzene	2.	ND
1,3-Dichlorobenzene	2.	ND
1,4-Dichlorobenzene	2.	ND
Ethylbenzene	1.	ND
Toluene	1.	ND
Xylenes	5.	ND
MTBE	1.	1.34

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

NOTES:

1 None detected

Reviewed by Suzanne Drendel



ENDYNE, INC.

RECEIVED NIA 04 1992

Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

LABORATORY REPORT

EPA METHOD 602 -- PURGEABLE AROMATICS

CLIENT: Griffin International
PROJECT NAME: Ascutney Citgo
REPORT DATE: February 28, 1992
SAMPLER: Ron Miller
DATE SAMPLED: February 13, 1992
DATE RECEIVED: February 14, 1992

PROJECT CODE: GIAS6885
ANALYSIS DATE: February 24, 1992
STATION: MW 2
REF.#: 28,232
TIME SAMPLED: 13:00

<u>Parameter</u>	<u>Minimum Detection Limit</u>	<u>Concentration (ug/L)</u>
Benzene	2.	ND ¹
Chlorobenzene	1.	ND
1,2-Dichlorobenzene	2.	ND
1,3-Dichlorobenzene	2.	ND
1,4-Dichlorobenzene	2.	ND
Ethylbenzene	1.	ND
Toluene	1.	3.90
Xylenes	5.	ND
MTBE	1.	TBQ ²

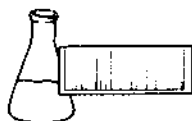
NUMBER OF UNIDENTIFIED PEAKS FOUND: 11

NOTES:

- 1 None detected
- 2 Trace below quantitation limit

Reviewed by

Suzanne H. H. H.



ENDYNE, INC.

Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

LABORATORY REPORT

EPA METHOD 602 -- PURGEABLE AROMATICS

CLIENT: Griffin International
PROJECT NAME: Ascutney Citgo
REPORT DATE: February 28, 1992
SAMPLER: Ron Miller
DATE SAMPLED: February 13, 1992
DATE RECEIVED: February 14, 1992

PROJECT CODE: GIAS6885
ANALYSIS DATE: February 24, 1992
STATION: MW 3
REF.#: 28,233
TIME SAMPLED: 15:30

<u>Parameter</u>	<u>Minimum Detection Limit</u>	<u>Concentration (ug/L)</u>
Benzene	2.	656.
Chlorobenzene	1.	ND ¹
1,2-Dichlorobenzene	2.	ND
1,3-Dichlorobenzene	2.	ND
1,4-Dichlorobenzene	2.	ND
Ethylbenzene	1.	66.1
Toluene	1.	341.
Xylenes	5.	406.
MTBE	1.	208.

NUMBER OF UNIDENTIFIED PEAKS FOUND: 26

NOTES:

1 None detected

Reviewed by

Suzanne D. Dwyer



ENDYNE, INC.

Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

LABORATORY REPORT

EPA METHOD 602 -- PURGEABLE AROMATICS

CLIENT: Griffin International
PROJECT NAME: Ascutney Citgo
REPORT DATE: February 28, 1992
SAMPLER: Ron Miller
DATE SAMPLED: February 13, 1992
DATE RECEIVED: February 14, 1992

PROJECT CODE: GIAS6885
ANALYSIS DATE: February 24, 1992
STATION: MW 6
REF.#: 28,234
TIME SAMPLED: 14:45

<u>Parameter</u>	<u>Minimum Detection Limit</u>	<u>Concentration (ug/L)</u>
Benzene	2.	452.
Chlorobenzene	1.	ND ¹
1,2-Dichlorobenzene	2.	ND
1,3-Dichlorobenzene	2.	ND
1,4-Dichlorobenzene	2.	ND
Ethylbenzene	1.	1,340.
Toluene	1.	3,720.
Xylenes	5.	7,790.
MTBE	1.	ND

NUMBER OF UNIDENTIFIED PEAKS FOUND: 9

NOTES:

1 None detected

Reviewed by

Suzanne Dunder



ENDYNE, INC.

Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

LABORATORY REPORT

EPA METHOD 602 -- PURGEABLE AROMATICS

CLIENT: Griffin International
PROJECT NAME: Ascutney Citgo
REPORT DATE: February 28, 1992
SAMPLER: Ron Miller
DATE SAMPLED: February 13, 1992
DATE RECEIVED: February 14, 1992

PROJECT CODE: GLAS6885
ANALYSIS DATE: February 24, 1992
STATION: Yankee Village Supply
REF.#: 28,238
TIME SAMPLED: 16:00

<u>Parameter</u>	<u>Minimum Detection Limit</u>	<u>Concentration (ug/L)</u>
Benzene	2.	ND ¹
Chlorobenzene	1.	ND
1,2-Dichlorobenzene	2.	ND
1,3-Dichlorobenzene	2.	ND
1,4-Dichlorobenzene	2.	ND
Ethylbenzene	1.	ND
Toluene	1.	ND
Xylenes	5.	ND
MTBE	1.	ND

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

NOTES:

1 None detected

Reviewed by

Seymour Grenade



ENDYNE, INC.

Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

LABORATORY REPORT

EPA METHOD 602 -- PURGEABLE AROMATICS

CLIENT: Griffin International
PROJECT NAME: Ascutney Citgo
REPORT DATE: February 28, 1992
SAMPLER: Ron Miller
DATE SAMPLED: February 13, 1992
DATE RECEIVED: February 14, 1992

PROJECT CODE: GIAS6885
ANALYSIS DATE: February 24, 1992
STATION: Trip Blank
REF.#: 28,236
TIME SAMPLED: 15:55

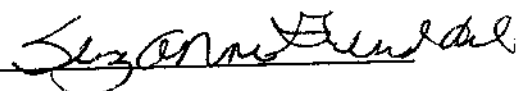
<u>Parameter</u>	<u>Minimum Detection Limit</u>	<u>Concentration (ug/L)</u>
Benzene	2.	ND ¹
Chlorobenzene	1.	ND
1,2-Dichlorobenzene	2.	ND
1,3-Dichlorobenzene	2.	ND
1,4-Dichlorobenzene	2.	ND
Ethylbenzene	1.	ND
Toluene	1.	ND
Xylenes	5.	ND
MTBE	1.	ND

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

NOTES:

1 None detected

Reviewed by





ENDYNE, INC.

Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

LABORATORY REPORT

EPA METHOD 602 -- PURGEABLE AROMATICS

CLIENT: Griffin International
PROJECT NAME: Ascutney Citgo
REPORT DATE: February 28, 1992
SAMPLER: Ron Miller
DATE SAMPLED: February 13, 1992
DATE RECEIVED: February 14, 1992

PROJECT CODE: GIAS6885
ANALYSIS DATE: February 24, 1992
STATION: Equipment Blank
REF.#: 28,237
TIME SAMPLED: 15:45

<u>Parameter</u>	<u>Minimum Detection Limit</u>	<u>Concentration (ug/L)</u>
Benzene	2.	ND ¹
Chlorobenzene	1.	ND
1,2-Dichlorobenzene	2.	ND
1,3-Dichlorobenzene	2.	ND
1,4-Dichlorobenzene	2.	ND
Ethylbenzene	1.	ND
Toluene	1.	ND
Xylenes	5.	ND
MTBE	1.	ND

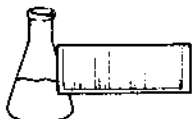
NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

NOTES:

1 None detected

Reviewed by

Seamus Gendron



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LABORATORY REPORT

EPA METHOD 602 -- PURGEABLE AROMATICS

CLIENT: Griffin International

PROJECT NAME: Ascutney Citgo

REPORT DATE: February 28, 1992

SAMPLER: Ron Miller

DATE SAMPLED: February 13, 1992

DATE RECEIVED: February 14, 1992

PROJECT CODE: GLAS6885

ANALYSIS DATE: February 24, 1992

STATION: MW 8 (DUP OF MW 6)

REF.#: 28,235

TIME SAMPLED: Not Indicated

<u>Parameter</u>	<u>Minimum Detection Limit</u>	<u>Concentration (ug/L)</u>
Benzene	2.	597.
Chlorobenzene	1.	ND ¹
1,2-Dichlorobenzene	2.	ND
1,3-Dichlorobenzene	2.	ND
1,4-Dichlorobenzene	2.	ND
Ethylbenzene	1.	1,620.
Toluene	1.	5,030.
Xylenes	5.	9,710.
MTBE	1.	ND

NUMBER OF UNIDENTIFIED PEAKS FOUND: 8

NOTES:

1 None detected

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Suzanne Gendel



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LABORATORY REPORT

EPA METHOD 602 -- PURGEABLE AROMATICS

CLIENT: Griffin International
PROJECT NAME: Ascutney Citgo
REPORT DATE: April 17, 1992
DATE SAMPLED: April 2, 1992
DATE RECEIVED: April 3, 1992
ANALYSIS DATE: April 13, 1992

PROJECT CODE: GIAS7191
REF.#: 29,410
STATION: MW 2
TIME SAMPLED: 11:55
SAMPLER: Don Tourangeau

<u>Parameter</u>	<u>Detection Limit (ug/L)</u>	<u>Concentration (ug/L)</u>
Benzene	1	7.9
Chlorobenzene	2	ND ¹
1,2-Dichlorobenzene	2	ND
1,3-Dichlorobenzene	2	ND
1,4-Dichlorobenzene	2	ND
Ethylbenzene	1	ND
Toluene	1	2.3
Xylenes	1	ND
MTBE	1	ND

NUMBER OF UNIDENTIFIED PEAKS FOUND: 15

NOTES:

1 None detected

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LABORATORY REPORT

EPA METHOD 602 -- PURGEABLE AROMATICS

CLIENT: Griffin International
PROJECT NAME: Ascutney Citgo
REPORT DATE: April 17, 1992
DATE SAMPLED: April 2, 1992
DATE RECEIVED: April 3, 1992
ANALYSIS DATE: April 16, 1992

PROJECT CODE: GIAS7191
REF.#: 29,409
STATION: MW 3
TIME SAMPLED: 11:45
SAMPLER: Don Tourangeau

<u>Parameter</u>	<u>Detection Limit (ug/L)¹</u>	<u>Concentration (ug/L)</u>
Benzene	10	676.
Chlorobenzene	20	ND ²
1,2-Dichlorobenzene	20	ND
1,3-Dichlorobenzene	20	ND
1,4-Dichlorobenzene	20	ND
Ethylbenzene	10	134.
Toluene	10	286.
Xylenes	10	512.
MTBE	10	84.2

NUMBER OF UNIDENTIFIED PEAKS FOUND: 28

NOTES:

- 1 Detection limit raised due to high levels of contaminants. Sample run at 10% dilution.
2 None detected

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LABORATORY REPORT

EPA METHOD 602 -- PURGEABLE AROMATICS

CLIENT: Griffin International
PROJECT NAME: Ascutney Citgo
REPORT DATE: April 17, 1992
DATE SAMPLED: April 2, 1992
DATE RECEIVED: April 3, 1992
ANALYSIS DATE: April 16, 1992

PROJECT CODE: GIAS7191
REF.#: 29,408
STATION: MW 6
TIME SAMPLED: 11:30
SAMPLER: Don Tourangeau

<u>Parameter</u>	<u>Detection Limit (ug/L)¹</u>	<u>Concentration (ug/L)</u>
Benzene	100	434.
Chlorobenzene	200	ND ²
1,2-Dichlorobenzene	200	ND
1,3-Dichlorobenzene	200	ND
1,4-Dichlorobenzene	200	ND
Ethylbenzene	100	1,210.
Toluene	100	3,680.
Xylenes	100	7,360.
MTBE	100	ND

NUMBER OF UNIDENTIFIED PEAKS FOUND: 7

NOTES:

- 1 Detection limit raised due to high levels of contaminants. Sample run at 1% dilution.
- 2 None detected

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LABORATORY REPORT

EPA METHOD 602 -- PURGEABLE AROMATICS

CLIENT: Griffin International
PROJECT NAME: Ascutney Citgo
REPORT DATE: April 17, 1992
DATE SAMPLED: April 2, 1992
DATE RECEIVED: April 3, 1992
ANALYSIS DATE: April 16, 1992

PROJECT CODE: GIAS7191
REF.#: 29,407
STATION: MW 8
TIME SAMPLED: 11:15
SAMPLER: Don Tourangeau

<u>Parameter</u>	<u>Detection Limit (ug/L)</u>	<u>Concentration (ug/L)</u>
Benzene	1	ND ¹
Chlorobenzene	2	ND
1,2-Dichlorobenzene	2	ND
1,3-Dichlorobenzene	2	ND
1,4-Dichlorobenzene	2	ND
Ethylbenzene	1	ND
Toluene	1	ND
Xylenes	1	ND
MTBE	1	ND

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

NOTES:

1 None detected

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LABORATORY REPORT

EPA METHOD 602 -- PURGEABLE AROMATICS

CLIENT: Griffin International
PROJECT NAME: Ascutney Citgo
REPORT DATE: April 17, 1992
DATE SAMPLED: April 2, 1992
DATE RECEIVED: April 3, 1992
ANALYSIS DATE: April 16, 1992

PROJECT CODE: GIAS7191
REF.#: 29,406
STATION: MW 9
TIME SAMPLED: 11:00
SAMPLER: Don Tourangeau

<u>Parameter</u>	<u>Detection Limit (ug/L)</u>	<u>Concentration (ug/L)</u>
Benzene	1	ND ¹
Chlorobenzene	2	ND
1,2-Dichlorobenzene	2	ND
1,3-Dichlorobenzene	2	ND
1,4-Dichlorobenzene	2	ND
Ethylbenzene	1	ND
Toluene	1	ND
Xylenes	1	ND
MTBE	1	ND

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

NOTES:

1 None detected

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LABORATORY REPORT

EPA METHOD 602 -- PURGEABLE AROMATICS

CLIENT: Griffin International
PROJECT NAME: Ascutney Citgo
REPORT DATE: April 17, 1992
DATE SAMPLED: April 2, 1992
DATE RECEIVED: April 3, 1992
ANALYSIS DATE: April 16, 1992

PROJECT CODE: GIAS7191
REF.#: 29,405
STATION: MW 10
TIME SAMPLED: 10:40
SAMPLER: Don Tourangeau

<u>Parameter</u>	<u>Detection Limit (ug/L)</u>	<u>Concentration (ug/L)</u>
Benzene	1	ND ¹
Chlorobenzene	2	ND
1,2-Dichlorobenzene	2	ND
1,3-Dichlorobenzene	2	ND
1,4-Dichlorobenzene	2	ND
Ethylbenzene	1	ND
Toluene	1	ND
Xylenes	1	ND
MTBE	1	ND

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

NOTES:

1 None detected

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LABORATORY REPORT

EPA METHOD 602 -- PURGEABLE AROMATICS

CLIENT: Griffin International
PROJECT NAME: Ascutney Citgo
REPORT DATE: April 17, 1992
DATE SAMPLED: April 2, 1992
DATE RECEIVED: April 3, 1992
ANALYSIS DATE: April 12, 1992

PROJECT CODE: GIAS7191
REF.#: 29,413
STATION: Yankee Well
TIME SAMPLED: 15:52
SAMPLER: Don Tourangeau

<u>Parameter</u>	<u>Detection Limit (ug/L)</u>	<u>Concentration (ug/L)</u>
Benzene	1	ND ¹
Chlorobenzene	2	ND
1,2-Dichlorobenzene	2	ND
1,3-Dichlorobenzene	2	ND
1,4-Dichlorobenzene	2	ND
Ethylbenzene	1	ND
Toluene	1	ND
Xylenes	1	ND
MTBE	1	ND

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

NOTES:

1 None detected

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LABORATORY REPORT

EPA METHOD 602 -- PURGEABLE AROMATICS

CLIENT: Griffin International
PROJECT NAME: Ascutney Citgo
REPORT DATE: April 17, 1992
DATE SAMPLED: April 2, 1992
DATE RECEIVED: April 3, 1992
ANALYSIS DATE: April 13, 1992

PROJECT CODE: GIAS7191
REF.#: 29,414
STATION: Wragg Supply Well
TIME SAMPLED: 16:08
SAMPLER: Don Tourangeau

<u>Parameter</u>	<u>Detection Limit (ug/L)</u>	<u>Concentration (ug/L)</u>
Benzene	1	ND ¹
Chlorobenzene	2	ND
1,2-Dichlorobenzene	2	ND
1,3-Dichlorobenzene	2	ND
1,4-Dichlorobenzene	2	ND
Ethylbenzene	1	ND
Toluene	1	ND
Xylenes	1	ND
MTBE	1	2.0

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

NOTES:

1 None detected

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LABORATORY REPORT

EPA METHOD 602 -- PURGEABLE AROMATICS

CLIENT: Griffin International
PROJECT NAME: Ascutney Citgo
REPORT DATE: April 17, 1992
DATE SAMPLED: April 2, 1992
DATE RECEIVED: April 3, 1992
ANALYSIS DATE: April 16, 1992

PROJECT CODE: GIAS7191
REF.#: 29,404
STATION: Citgo Supply Well
TIME SAMPLED: 9:25
SAMPLER: Don Tourangeau

<u>Parameter</u>	<u>Detection Limit (ug/L)</u>	<u>Concentration (ug/L)</u>
Benzene	1	ND ¹
Chlorobenzene	2	ND
1,2-Dichlorobenzene	2	ND
1,3-Dichlorobenzene	2	ND
1,4-Dichlorobenzene	2	ND
Ethylbenzene	1	ND
Toluene	1	ND
Xylenes	1	ND
MTBE	1	3.3

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

NOTES:

1 None detected

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LABORATORY REPORT

EPA METHOD 602 -- PURGEABLE AROMATICS

CLIENT: Griffin International
PROJECT NAME: Ascutney Citgo
REPORT DATE: April 17, 1992
DATE SAMPLED: April 2, 1992
DATE RECEIVED: April 3, 1992
ANALYSIS DATE: April 13, 1992

PROJECT CODE: GIAS7191
REF.#: 29,403
STATION: Trip blank
TIME SAMPLED: 6:45
SAMPLER: Don Tourangeau

<u>Parameter</u>	<u>Detection Limit (ug/L)</u>	<u>Concentration (ug/L)</u>
Benzene	1	TBQ ¹
Chlorobenzene	2	ND ²
1,2-Dichlorobenzene	2	ND
1,3-Dichlorobenzene	2	ND
1,4-Dichlorobenzene	2	ND
Ethylbenzene	1	ND
Toluene	1	3.0
Xylenes	1	TBQ
MTBE	1	ND

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

NOTES:

- 1 Trace below quantitation limit
- 2 None detected

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LABORATORY REPORT

EPA METHOD 602 -- PURGEABLE AROMATICS

CLIENT: Griffin International
PROJECT NAME: Ascutney Citgo
REPORT DATE: April 17, 1992
DATE SAMPLED: April 2, 1992
DATE RECEIVED: April 3, 1992
ANALYSIS DATE: April 13, 1992

PROJECT CODE: GIAS7191
REF.#: 29,412
STATION: Site Blank
TIME SAMPLED: 12:10
SAMPLER: Don Tourangeau

<u>Parameter</u>	<u>Detection Limit (ug/L)</u>	<u>Concentration (ug/L)</u>
Benzene	1	ND ¹
Chlorobenzene	2	ND
1,2-Dichlorobenzene	2	ND
1,3-Dichlorobenzene	2	ND
1,4-Dichlorobenzene	2	ND
Ethylbenzene	1	ND
Toluene	1	TBQ ²
Xylenes	1	ND
MTBE	1	ND

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

NOTES:

- 1 None detected
- 2 Trace below quantitation limit

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LABORATORY REPORT

EPA METHOD 602 -- PURGEABLE AROMATICS

CLIENT: Griffin International
PROJECT NAME: Ascutney Citgo
REPORT DATE: April 17, 1992
DATE SAMPLED: April 2, 1992
DATE RECEIVED: April 3, 1992
ANALYSIS DATE: April 16, 1992

PROJECT CODE: GIAS7191
REF.#: 29,411
STATION: MW 11 (Dup to MW 2)
TIME SAMPLED: Not Indicated
SAMPLER: Don Tourangeau

<u>Parameter</u>	<u>Detection Limit (ug/L)</u>	<u>Concentration (ug/L)</u>
Benzene	1	8.1
Chlorobenzene	2	ND ¹
1,2-Dichlorobenzene	2	ND
1,3-Dichlorobenzene	2	ND
1,4-Dichlorobenzene	2	ND
Ethylbenzene	1	ND
Toluene	1	2.8
Xylenes	1	ND
MTBE	1	1.7

NUMBER OF UNIDENTIFIED PEAKS FOUND: 16

NOTES:

1 None detected

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LABORATORY REPORT

EPA METHOD 602 -- PURGEABLE AROMATICS

CLIENT: Griffin International
PROJECT NAME: Ascutney Citgo
REPORT DATE: May 27, 1992
SAMPLER: Don Tourangeau
DATE SAMPLED: May 8, 1992
DATE RECEIVED: May 11, 1992

PROJECT CODE: GIAS7594
ANALYSIS DATE: May 22, 1992
STATION: MW #2
REF.#: 30,697
TIME SAMPLED: 14:30

<u>Parameter</u>	<u>Minimum Detection Limit</u>	<u>Concentration (ug/L)</u>
Benzene	1.	ND ¹
Chlorobenzene	2.	ND
1,2-Dichlorobenzene	2.	ND
1,3-Dichlorobenzene	2.	ND
1,4-Dichlorobenzene	2.	ND
Ethylbenzene	1.	ND
Toluene	1.	ND
Xylenes	1.	ND
MTBE	1.	ND

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

NOTES:

1 None detected

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LABORATORY REPORT

EPA METHOD 602 -- PURGEABLE AROMATICS

CLIENT: Griffin International
PROJECT NAME: Ascutney Citgo
REPORT DATE: May 27, 1992
SAMPLER: Don Tourangeau
DATE SAMPLED: May 8, 1992
DATE RECEIVED: May 11, 1992

PROJECT CODE: GIAS7594
ANALYSIS DATE: May 22, 1992
STATION: MW #3
REF.#: 30,698
TIME SAMPLED: 15:00

<u>Parameter</u>	<u>Minimum Detection Limit</u>	<u>Concentration (ug/L)</u>
Benzene	1.	41.8
Chlorobenzene	2.	ND ¹
1,2-Dichlorobenzene	2.	ND
1,3-Dichlorobenzene	2.	ND
1,4-Dichlorobenzene	2.	ND
Ethylbenzene	1.	87.7
Toluene	1.	5.76
Xylenes	1.	127.
MTBE	1.	ND

NUMBER OF UNIDENTIFIED PEAKS FOUND: 27

NOTES:

1 None detected

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LABORATORY REPORT

EPA METHOD 602 -- PURGEABLE AROMATICS

CLIENT: Griffin International
PROJECT NAME: Ascutney Citgo
REPORT DATE: May 27, 1992
SAMPLER: Don Tourangeau
DATE SAMPLED: May 8, 1992
DATE RECEIVED: May 11, 1992

PROJECT CODE: GIAS7594
ANALYSIS DATE: May 22, 1992
STATION: MW #6
REF.#: 30,694
TIME SAMPLED: 13:30

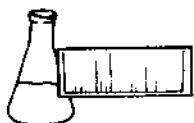
<u>Parameter</u>	<u>Minimum Detection Limit</u>	<u>Concentration (ug/L)</u>
Benzene	1.	670.
Chlorobenzene	2.	ND ¹
1,2-Dichlorobenzene	2.	ND
1,3-Dichlorobenzene	2.	ND
1,4-Dichlorobenzene	2.	ND
Ethylbenzene	1.	1,250.
Toluene	1.	6,450.
Xylenes	1.	7,510.
MTBE	1.	ND

NUMBER OF UNIDENTIFIED PEAKS FOUND: 12

NOTES:

1 None detected

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LABORATORY REPORT

EPA METHOD 602 -- PURGEABLE AROMATICS

CLIENT: Griffin International
PROJECT NAME: Ascutney Citgo
REPORT DATE: May 27, 1992
SAMPLER: Don Tourangeau
DATE SAMPLED: May 8, 1992
DATE RECEIVED: May 11, 1992

PROJECT CODE: GIAS7594
ANALYSIS DATE: May 22, 1992
STATION: MW #8
REF.#: 30,693
TIME SAMPLED: 13:10

<u>Parameter</u>	<u>Minimum Detection Limit</u>	<u>Concentration (ug/L)</u>
Benzene	1.	ND ¹
Chlorobenzene	2.	ND
1,2-Dichlorobenzene	2.	ND
1,3-Dichlorobenzene	2.	ND
1,4-Dichlorobenzene	2.	ND
Ethylbenzene	1.	ND
Toluene	1.	ND
Xylenes	1.	ND
MTBE	1.	ND

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

NOTES:

1 None detected

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LABORATORY REPORT

EPA METHOD 602 -- PURGEABLE AROMATICS

CLIENT: Griffin International
PROJECT NAME: Ascutney Citgo
REPORT DATE: May 27, 1992
SAMPLER: Don Tourangeau
DATE SAMPLED: May 8, 1992
DATE RECEIVED: May 11, 1992

PROJECT CODE: GIAS7594
ANALYSIS DATE: May 22, 1992
STATION: MW #9
REF.#: 30,692
TIME SAMPLED: 12:50

<u>Parameter</u>	<u>Minimum Detection Limit</u>	<u>Concentration (ug/L)</u>
Benzene	1.	ND ¹
Chlorobenzene	2.	ND
1,2-Dichlorobenzene	2.	ND
1,3-Dichlorobenzene	2.	ND
1,4-Dichlorobenzene	2.	ND
Ethylbenzene	1.	ND
Toluene	1.	ND
Xylenes	1.	ND
MTBE	1.	ND

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

NOTES:

1 None detected

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LABORATORY REPORT

EPA METHOD 602 -- PURGEABLE AROMATICS

CLIENT: Griffin International
PROJECT NAME: Ascutney Citgo
REPORT DATE: May 27, 1992
SAMPLER: Don Tourangeau
DATE SAMPLED: May 8, 1992
DATE RECEIVED: May 11, 1992

PROJECT CODE: GIAS7594
ANALYSIS DATE: May 22, 1992
STATION: MW #10
REF.#: 30,691
TIME SAMPLED: 12:35

<u>Parameter</u>	<u>Minimum Detection Limit</u>	<u>Concentration (ug/L)</u>
Benzene	1.	ND ¹
Chlorobenzene	2.	ND
1,2-Dichlorobenzene	2.	ND
1,3-Dichlorobenzene	2.	ND
1,4-Dichlorobenzene	2.	ND
Ethylbenzene	1.	ND
Toluene	1.	ND
Xylenes	1.	ND
MTBE	1.	ND

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

NOTES:

1 None detected

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LABORATORY REPORT

EPA METHOD 602 -- PURGEABLE AROMATICS

CLIENT: Griffin International
PROJECT NAME: Ascutney Citgo
REPORT DATE: May 27, 1992
SAMPLER: Don Tourangeau
DATE SAMPLED: May 8, 1992
DATE RECEIVED: May 11, 1992

PROJECT CODE: GIAS7594
ANALYSIS DATE: May 22, 1992
STATION: Wragg Bros Supply Well
REF.#: 30,702
TIME SAMPLED: 16:43

<u>Parameter</u>	<u>Minimum Detection Limit</u>	<u>Concentration (ug/L)</u>
Benzene	1.	ND ¹
Chlorobenzene	2.	ND
1,2-Dichlorobenzene	2.	ND
1,3-Dichlorobenzene	2.	ND
1,4-Dichlorobenzene	2.	ND
Ethylbenzene	1.	ND
Toluene	1.	ND
Xylenes	1.	ND
MTBE	1.	6.44

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

NOTES:

1 None detected

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LABORATORY REPORT

EPA METHOD 602 -- PURGEABLE AROMATICS

CLIENT: Griffin International
PROJECT NAME: Ascutney Citgo
REPORT DATE: May 27, 1992
SAMPLER: Don Tourangeau
DATE SAMPLED: May 8, 1992
DATE RECEIVED: May 11, 1992

PROJECT CODE: GIAS7594
ANALYSIS DATE: May 22, 1992
STATION: Citgo Supply Well
REF.#: 30,703
TIME SAMPLED: 17:00

<u>Parameter</u>	<u>Minimum Detection Limit</u>	<u>Concentration (ug/L)</u>
Benzene	1.	ND ¹
Chlorobenzene	2.	ND
1,2-Dichlorobenzene	2.	ND
1,3-Dichlorobenzene	2.	ND
1,4-Dichlorobenzene	2.	ND
Ethylbenzene	1.	ND
Toluene	1.	ND
Xylenes	1.	ND
MTBE	1.	6.03

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

NOTES:

1 None detected

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LABORATORY REPORT

EPA METHOD 602 -- PURGEABLE AROMATICS

CLIENT: Griffin International
PROJECT NAME: Ascutney Citgo
REPORT DATE: May 27, 1992
SAMPLER: Don Tourangeau
DATE SAMPLED: May 8, 1992
DATE RECEIVED: May 11, 1992

PROJECT CODE: GIAS7594
ANALYSIS DATE: May 22, 1992
STATION: Yankee Village Supply Well
REF.#: 30,701
TIME SAMPLED: 16:30

<u>Parameter</u>	<u>Minimum Detection Limit</u>	<u>Concentration (ug/L)</u>
Benzene	1.	ND ¹
Chlorobenzene	2.	ND
1,2-Dichlorobenzene	2.	ND
1,3-Dichlorobenzene	2.	ND
1,4-Dichlorobenzene	2.	ND
Ethylbenzene	1.	ND
Toluene	1.	ND
Xylenes	1.	ND
MTBE	1.	ND

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

NOTES:

1 None detected

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Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

LABORATORY REPORT

EPA METHOD 602 -- PURGEABLE AROMATICS

CLIENT: Griffin International
PROJECT NAME: Ascutney Citgo
REPORT DATE: May 27, 1992
SAMPLER: Don Tourangeau
DATE SAMPLED: May 8, 1992
DATE RECEIVED: May 11, 1992

PROJECT CODE: GIAS7594
ANALYSIS DATE: May 22, 1992
STATION: REA Supply Well
REF.#: 30,695
TIME SAMPLED: 14:05

<u>Parameter</u>	<u>Minimum Detection Limit</u>	<u>Concentration (ug/L)</u>
Benzene	1.	ND ¹
Chlorobenzene	2.	ND
1,2-Dichlorobenzene	2.	ND
1,3-Dichlorobenzene	2.	ND
1,4-Dichlorobenzene	2.	ND
Ethylbenzene	1.	ND
Toluene	1.	ND
Xylenes	1.	ND
MTBE	1.	ND

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

NOTES:

1 None detected

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LABORATORY REPORT

EPA METHOD 602 -- PURGEABLE AROMATICS

CLIENT: Griffin International
PROJECT NAME: Ascutney Citgo
REPORT DATE: May 27, 1992
SAMPLER: Don Tourangeau
DATE SAMPLED: May 8, 1992
DATE RECEIVED: May 11, 1992

PROJECT CODE: GIAS7594
ANALYSIS DATE: May 22, 1992
STATION: White Supply Well
REF.#: 30,696
TIME SAMPLED: 14:08

<u>Parameter</u>	<u>Minimum Detection Limit</u>	<u>Concentration (ug/L)</u>
Benzene	1.	ND ¹
Chlorobenzene	2.	ND
1,2-Dichlorobenzene	2.	ND
1,3-Dichlorobenzene	2.	ND
1,4-Dichlorobenzene	2.	ND
Ethylbenzene	1.	ND
Toluene	1.	ND
Xylenes	1.	ND
MTBE	1.	ND

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

NOTES:

1 None detected

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LABORATORY REPORT

EPA METHOD 602 -- PURGEABLE AROMATICS

CLIENT: Griffin International
PROJECT NAME: Ascutney Citgo
REPORT DATE: May 27, 1992
SAMPLER: Don Tourangeau
DATE SAMPLED: May 8, 1992
DATE RECEIVED: May 11, 1992

PROJECT CODE: GIAS7594
ANALYSIS DATE: May 22, 1992
STATION: Trip Blank
REF.#: 30,690
TIME SAMPLED: 7:40

<u>Parameter</u>	<u>Minimum Detection Limit</u>	<u>Concentration (ug/L)</u>
Benzene	1.	ND ¹
Chlorobenzene	2.	ND
1,2-Dichlorobenzene	2.	ND
1,3-Dichlorobenzene	2.	ND
1,4-Dichlorobenzene	2.	ND
Ethylbenzene	1.	ND
Toluene	1.	1.05
Xylenes	1.	ND
MTBE	1.	ND

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

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NOTES:

1 None detected

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LABORATORY REPORT

EPA METHOD 602 -- PURGEABLE AROMATICS

CLIENT: Griffin International
PROJECT NAME: Ascutney Citgo
REPORT DATE: May 27, 1992
SAMPLER: Don Tourangeau
DATE SAMPLED: May 8, 1992
DATE RECEIVED: May 11, 1992

PROJECT CODE: GIAS7594
ANALYSIS DATE: May 22, 1992
STATION: Site Blank
REF.#: 30,699
TIME SAMPLED: 15:15

<u>Parameter</u>	<u>Minimum Detection Limit</u>	<u>Concentration (ug/L)</u>
Benzene	1.	ND ¹
Chlorobenzene	2.	ND
1,2-Dichlorobenzene	2.	ND
1,3-Dichlorobenzene	2.	ND
1,4-Dichlorobenzene	2.	ND
Ethylbenzene	1.	ND
Toluene	1.	1.16
Xylenes	1.	ND
MTBE	1.	ND

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

NOTES:

1 None detected

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LABORATORY REPORT

EPA METHOD 602 -- PURGEABLE AROMATICS

CLIENT: Griffin International
PROJECT NAME: Ascutney Citgo
REPORT DATE: May 27, 1992
SAMPLER: Don Tourangeau
DATE SAMPLED: May 8, 1992
DATE RECEIVED: May 11, 1992

PROJECT CODE: GIAS7594
ANALYSIS DATE: May 22, 1992
STATION: Duplicate (MW 6)
REF.#: 30,700
TIME SAMPLED: Not Indicated

<u>Parameter</u>	<u>Minimum Detection Limit</u>	<u>Concentration (ug/L)</u>
Benzene	1.	620.
Chlorobenzene	2.	ND ¹
1,2-Dichlorobenzene	2.	ND
1,3-Dichlorobenzene	2.	ND
1,4-Dichlorobenzene	2.	ND
Ethylbenzene	1.	1,120.
Toluene	1.	6,200.
Xylenes	1.	7,050.
MTBE	1.	ND

NUMBER OF UNIDENTIFIED PEAKS FOUND: 13

NOTES:

1 None detected

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LABORATORY REPORT

EPA METHOD 602 -- PURGEABLE AROMATICS

CLIENT: Griffin International
PROJECT NAME: Ascutney Citgo
REPORT DATE: June 17, 1992
SAMPLER: Becca Schuyler
DATE SAMPLED: June 9, 1992
DATE RECEIVED: June 10, 1992

PROJECT CODE: GIAS1216
ANALYSIS DATE: June 14, 1992
STATION: MW #2
REF.#: 31,881
TIME SAMPLED: 13:00

<u>Parameter</u>	<u>Minimum Detection Limit</u>	<u>Concentration (ug/L)</u>
Benzene	1.	ND ¹
Chlorobenzene	2.	ND
1,2-Dichlorobenzene	2.	ND
1,3-Dichlorobenzene	2.	ND
1,4-Dichlorobenzene	2.	ND
Ethylbenzene	1.	ND
Toluene	1.	ND
Xylenes	1.	ND
MTBE	1.	ND

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

NOTES:

1 None detected

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LABORATORY REPORT

EPA METHOD 602 -- PURGEABLE AROMATICS

CLIENT: Griffin International
PROJECT NAME: Ascutney Citgo
REPORT DATE: June 17, 1992
SAMPLER: Becca Schuyler
DATE SAMPLED: June 9, 1992
DATE RECEIVED: June 10, 1992

PROJECT CODE: GIAS1216
ANALYSIS DATE: June 14, 1992
STATION: MW #3
REF.#: 31,885
TIME SAMPLED: 14:35

<u>Parameter</u>	<u>Minimum Detection Limit</u>	<u>Concentration (ug/L)</u>
Benzene	1.	85.1
Chlorobenzene	2.	ND ¹
1,2-Dichlorobenzene	2.	ND
1,3-Dichlorobenzene	2.	ND
1,4-Dichlorobenzene	2.	ND
Ethylbenzene	1.	197.
Toluene	1.	ND
Xylenes	1.	253.
MTBE	1.	ND

NUMBER OF UNIDENTIFIED PEAKS FOUND: 9

NOTES:

1 None detected

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LABORATORY REPORT

EPA METHOD 602 -- PURGEABLE AROMATICS

CLIENT: Griffin International
PROJECT NAME: Ascutney Citgo
REPORT DATE: June 17, 1992
SAMPLER: Becca Schuyler
DATE SAMPLED: June 9, 1992
DATE RECEIVED: June 10, 1992

PROJECT CODE: GIAS1216
ANALYSIS DATE: June 14, 1992
STATION: MW #6
REF.#: 31,879
TIME SAMPLED: 12:35

<u>Parameter</u>	<u>Minimum Detection Limit</u>	<u>Concentration (ug/L)</u>
Benzene	1.	453.
Chlorobenzene	2.	ND ¹
1,2-Dichlorobenzene	2.	ND
1,3-Dichlorobenzene	2.	ND
1,4-Dichlorobenzene	2.	ND
Ethylbenzene	1.	860.
Toluene	1.	4,660.
Xylenes	1.	5,250.
MTBE	1.	ND

NUMBER OF UNIDENTIFIED PEAKS FOUND: 5

NOTES:

1 None detected

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LABORATORY REPORT

EPA METHOD 602 -- PURGEABLE AROMATICS

CLIENT: Griffin International
PROJECT NAME: Ascutney Citgo
REPORT DATE: June 17, 1992
SAMPLER: Becca Schuyler
DATE SAMPLED: June 9, 1992
DATE RECEIVED: June 10, 1992

PROJECT CODE: GIAS1216
ANALYSIS DATE: June 14, 1992
STATION: MW #8
REF.#: 31,878
TIME SAMPLED: 12:05

<u>Parameter</u>	<u>Minimum Detection Limit</u>	<u>Concentration (ug/L)</u>
Benzene	1.	ND ¹
Chlorobenzene	2.	ND
1,2-Dichlorobenzene	2.	ND
1,3-Dichlorobenzene	2.	ND
1,4-Dichlorobenzene	2.	ND
Ethylbenzene	1.	ND
Toluene	1.	ND
Xylenes	1.	ND
MTBE	1.	ND

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

NOTES:

1 None detected

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LABORATORY REPORT

EPA METHOD 602 -- PURGEABLE AROMATICS

CLIENT: Griffin International
PROJECT NAME: Ascutney Citgo
REPORT DATE: June 17, 1992
SAMPLER: Becca Schuyler
DATE SAMPLED: June 9, 1992
DATE RECEIVED: June 10, 1992

PROJECT CODE: GIAS1216
ANALYSIS DATE: June 14, 1992
STATION: MW #9
REF.#: 31,877
TIME SAMPLED: 11:40

<u>Parameter</u>	<u>Minimum Detection Limit</u>	<u>Concentration (ug/L)</u>
Benzene	1.	ND ¹
Chlorobenzene	2.	ND
1,2-Dichlorobenzene	2.	ND
1,3-Dichlorobenzene	2.	ND
1,4-Dichlorobenzene	2.	ND
Ethylbenzene	1.	ND
Toluene	1.	ND
Xylenes	1.	ND
MTBE	1.	ND

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

NOTES:

1 None detected

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LABORATORY REPORT

EPA METHOD 602 -- PURGEABLE AROMATICS

CLIENT: Griffin International
PROJECT NAME: Ascutney Citgo
REPORT DATE: June 17, 1992
SAMPLER: Becca Schuyler
DATE SAMPLED: June 9, 1992
DATE RECEIVED: June 10, 1992

PROJECT CODE: GIAS1216
ANALYSIS DATE: June 14, 1992
STATION: MW #10
REF.#: 31,876
TIME SAMPLED: 11:10

<u>Parameter</u>	<u>Minimum Detection Limit</u>	<u>Concentration (ug/L)</u>
Benzene	1.	ND ¹
Chlorobenzene	2.	ND
1,2-Dichlorobenzene	2.	ND
1,3-Dichlorobenzene	2.	ND
1,4-Dichlorobenzene	2.	ND
Ethylbenzene	1.	ND
Toluene	1.	ND
Xylenes	1.	ND
MTBE	1.	ND

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

NOTES:

1 None detected

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LABORATORY REPORT

EPA METHOD 602 -- PURGEABLE AROMATICS

CLIENT: Griffin International
PROJECT NAME: Ascutney Citgo
REPORT DATE: June 17, 1992
SAMPLER: Becca Schuyler
DATE SAMPLED: June 9, 1992
DATE RECEIVED: June 10, 1992

PROJECT CODE: GIAS1216
ANALYSIS DATE: June 14, 1992
STATION: Wragg Supply Well
REF.#: 31,883
TIME SAMPLED: 14:05

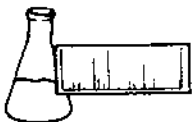
<u>Parameter</u>	<u>Minimum Detection Limit</u>	<u>Concentration (ug/L)</u>
Benzene	1.	ND ¹
Chlorobenzene	2.	ND
1,2-Dichlorobenzene	2.	ND
1,3-Dichlorobenzene	2.	ND
1,4-Dichlorobenzene	2.	ND
Ethylbenzene	1.	ND
Toluene	1.	ND
Xylenes	1.	ND
MTBE	1.	9.6

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

NOTES:

1 None detected

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LABORATORY REPORT

EPA METHOD 602 -- PURGEABLE AROMATICS

CLIENT: Griffin International
PROJECT NAME: Ascutney Citgo
REPORT DATE: June 17, 1992
SAMPLER: Becca Schuyler
DATE SAMPLED: June 9, 1992
DATE RECEIVED: June 10, 1992

PROJECT CODE: GIAS1216
ANALYSIS DATE: June 14, 1992
STATION: Yankee Village Supply Well
REF.#: 31,882
TIME SAMPLED: 13:45

<u>Parameter</u>	<u>Minimum Detection Limit</u>	<u>Concentration (ug/L)</u>
Benzene	1.	ND ¹
Chlorobenzene	2.	ND
1,2-Dichlorobenzene	2.	ND
1,3-Dichlorobenzene	2.	ND
1,4-Dichlorobenzene	2.	ND
Ethylbenzene	1.	ND
Toluene	1.	ND
Xylenes	1.	ND
MTBE	1.	ND

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

NOTES:

1 None detected

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LABORATORY REPORT

EPA METHOD 602 -- PURGEABLE AROMATICS

CLIENT: Griffin International
PROJECT NAME: Ascutney Citgo
REPORT DATE: June 17, 1992
SAMPLER: Becca Schuyler
DATE SAMPLED: June 9, 1992
DATE RECEIVED: June 10, 1992

PROJECT CODE: GIAS1216
ANALYSIS DATE: June 14, 1992
STATION: Citgo Supply Well
REF.#: 31,884
TIME SAMPLED: 14:30

<u>Parameter</u>	<u>Minimum Detection Limit</u>	<u>Concentration (ug/L)</u>
Benzene	1.	ND ¹
Chlorobenzene	2.	ND
1,2-Dichlorobenzene	2.	ND
1,3-Dichlorobenzene	2.	ND
1,4-Dichlorobenzene	2.	ND
Ethylbenzene	1.	ND
Toluene	1.	ND
Xylenes	1.	ND
MTBE	1.	ND

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

NOTES:

1 None detected

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LABORATORY REPORT

EPA METHOD 602 -- PURGEABLE AROMATICS

CLIENT: Griffin International
PROJECT NAME: Ascutney Citgo
REPORT DATE: June 17, 1992
SAMPLER: Becca Schuyler
DATE SAMPLED: June 9, 1992
DATE RECEIVED: June 10, 1992

PROJECT CODE: GIAS1216
ANALYSIS DATE: June 14, 1992
STATION: Trip Blank
REF.#: 31,875
TIME SAMPLED: 7:20

<u>Parameter</u>	<u>Minimum Detection Limit</u>	<u>Concentration (ug/L)</u>
Benzene	1.	ND ¹
Chlorobenzene	2.	ND
1,2-Dichlorobenzene	2.	ND
1,3-Dichlorobenzene	2.	ND
1,4-Dichlorobenzene	2.	ND
Ethylbenzene	1.	ND
Toluene	1.	ND
Xylenes	1.	ND
MTBE	1.	ND

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

NOTES:

1 None detected

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LABORATORY REPORT

EPA METHOD 602 -- PURGEABLE AROMATICS

CLIENT: Griffin International
PROJECT NAME: Ascutney Citgo
REPORT DATE: June 17, 1992
SAMPLER: Becca Schuyler
DATE SAMPLED: June 9, 1992
DATE RECEIVED: June 10, 1992

PROJECT CODE: GIAS1216
ANALYSIS DATE: June 14, 1992
STATION: Equipment Blank
REF.#: 31,880
TIME SAMPLED: 12:50

<u>Parameter</u>	<u>Minimum Detection Limit</u>	<u>Concentration (ug/L)</u>
Benzene	1.	ND ¹
Chlorobenzene	2.	ND
1,2-Dichlorobenzene	2.	ND
1,3-Dichlorobenzene	2.	ND
1,4-Dichlorobenzene	2.	ND
Ethylbenzene	1.	ND
Toluene	1.	ND
Xylenes	1.	ND
MTBE	1.	ND

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

NOTES:

1 None detected

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LABORATORY REPORT

EPA METHOD 602 -- PURGEABLE AROMATICS

CLIENT: Griffin International
PROJECT NAME: Ascutney Citgo
REPORT DATE: June 17, 1992
SAMPLER: Becca Schuyler
DATE SAMPLED: June 9, 1992
DATE RECEIVED: June 10, 1992

PROJECT CODE: GIAS1216
ANALYSIS DATE: June 14, 1992
STATION: Duplicate (MW 8)
REF.#: 31,886
TIME SAMPLED: Not Indicated

<u>Parameter</u>	<u>Minimum Detection Limit</u>	<u>Concentration (ug/L)</u>
Benzene	1.	ND ¹
Chlorobenzene	2.	ND
1,2-Dichlorobenzene	2.	ND
1,3-Dichlorobenzene	2.	ND
1,4-Dichlorobenzene	2.	ND
Ethylbenzene	1.	ND
Toluene	1.	ND
Xylenes	1.	ND
MTBE	1.	ND

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

NOTES:

1 None detected

Reviewed by _____